



UTP
Participant Trade Line Specification

UTPtrade v2015-2.1

UTP Participant Trade Line Specification

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Revisions Table: version 12/24/2001

Section	Revision Subject	Description
All	Trade Line Message Segregation	<ul style="list-style-type: none"> Participant Line Specifications split into two documents; one Trade, one Quote All Trade Messages and respective Trade Administrative and Trade Control Messages are now segregated from the Quote Messages
1.1	System Hours	<ul style="list-style-type: none"> The UTP Participant Trade Line will operate from 8:00 a.m. – 6:30 p.m. ET
2.2.5	Message Header	<ul style="list-style-type: none"> Message Sequence Number field increased from six to seven bytes Regional Reference Number field increased from six to seven bytes Added Date/Time Field Eliminated Status, Priority, and Reserved fields from Header New UTP Participant Identifiers added SIP, as the Central Processor Id added
2.2.8	Message Category and Type for all messages	<ul style="list-style-type: none"> Revised Category and Type Identifiers for each message that is transmitted across the line
3.2	Trade Message	<ul style="list-style-type: none"> Eliminated references to Cancel/Error, as the Cancel/Error information is now contained in its own message Trade Status eliminated Trade Time eliminated from body of message (Time now contained in Message Header) All references and error codes relational to Fractional Prices eliminated, as all transactions are now in decimal format
3.3	Cancel/Error Message	<ul style="list-style-type: none"> New Message created for Cancel/Error transactions
3.4	Correction Message	<ul style="list-style-type: none"> Trade Status eliminated Trade Time eliminated from body of message (Time now contained in Message Header) All references and error codes relational to Fractional Prices eliminated, as all transactions are now in decimal format
4.1	General Administrative Message	<ul style="list-style-type: none"> Increased maximum text character length to 300 characters
4.2	Trading Action Message	<ul style="list-style-type: none"> New Message added to line
4.4	Market Open Message	<ul style="list-style-type: none"> All Participants now eligible to send this Message
4.5	Market Closed Message	<ul style="list-style-type: none"> All Participants now eligible to send this Message
5.1	Emergency Market Halt	<ul style="list-style-type: none"> New Message added to line
5.2	Emergency Market Resume	<ul style="list-style-type: none"> New Message added to line
Appendix A	Error Codes	<ul style="list-style-type: none"> New Codes added for reference to new Messages and Conditions

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Revisions Table: version 2/25/2002

Section	Revision Subject	Description
2.2.5; various	Message Header	<ul style="list-style-type: none"> Added One Byte Message Status Field to message string Added Error Code 4 – Possible Duplicate Flag
2.2.8	Message Type	<ul style="list-style-type: none"> Added Category T, Type D As/Of Trade Report Message
3.2; 3.3; 3.4; 3.5	. T Sale Condition	<ul style="list-style-type: none"> Explain usage times when .T Sale Condition should be applied to transactions
3.5	As/Of Trade	<ul style="list-style-type: none"> Format, Field Definitions, and Reject Codes for As/Of Trade Report Message
5.3	Sequence Inquiry	<ul style="list-style-type: none"> Reword for consistency of message sequence number expected. A Sequence Inquiry Message will generate a response with the last sequence number received by NASDAQ and not the next expected message to be generated
5.9	Test Message	<ul style="list-style-type: none"> Hexadecimal “7E” should be replaced with Hexadecimal “7F” in the Field Description

Revisions Table: version 5/8/2002

Section	Revision Subject	Description
5.0	Message Header – Control Messages	<ul style="list-style-type: none"> Include fields in Message Header that are “NUL” filled for specific Control Messages

Revisions Table: version 1/14/2003

Section	Revision Subject	Description
2.2.6.1	Message Sequence Number system requirements	<ul style="list-style-type: none"> Guidelines for message sequence number usage
3.1.1	Market Center Close Price	<ul style="list-style-type: none"> Use of new sale condition that identifies market center’s close price
3.2.1; 3.3.1; 3.4.1; 3.5.1	Market Center Close Price	<ul style="list-style-type: none"> Added sale condition (TRCOND) value of “M”
3.2.1; 3.3.1; 3.4.1; 3.5.1	Execution Side	<ul style="list-style-type: none"> (TRSIDE) Short Sale prerequisite actions
3.2.1; 3.3.1; 3.4.1; 3.5.1	Note 2	<ul style="list-style-type: none"> Message requirements for “M” sale condition
3.2.2; 3.3.2; 3.4.2; 3.5.2	Error Code	<ul style="list-style-type: none"> Added validations to invalid volume code
3.5.2	Error Code	<ul style="list-style-type: none"> Added invalid reversal indicator value
4.2	Trading Action	<ul style="list-style-type: none"> Guidelines for trading action messages

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Revisions Table: version 5/20/2003

Section	Revision Subject	Description
3.2.1; 3.3.1; 3.4.1; 3.5.1; 6.0	Sale Condition Codes	<ul style="list-style-type: none"> Sale Condition Codes (TR COND, TX COND, TXX COND) added applicable to Stopped Stock transactions
3.1.1 3.1.2	Market Center Close Price rule modifications Sold Last and Stopped Stock transactions	<ul style="list-style-type: none"> Transactions including M sale condition value may include non-zero volume Clarification on trade correction transactions that utilize M sale condition Clarification on last sale processing for Sold Last and Stopped Stock transactions
3.2.1; 3.3.1; 3.4.1; 3.5.1; 6.0	Market Center Close Price volume validation	<ul style="list-style-type: none"> Reject condition changes to allow non-zero volume for transactions that incorporate the M sale condition
3.4.2	Trade Correction transaction validation	<ul style="list-style-type: none"> Sale Condition reject if .M sale condition not applied consistently in message

Revisions Table: version 6/8/2004

Section	Revision Subject	Description
2.2.8	New Administrative Message Type	<ul style="list-style-type: none"> Message Category A, Type K – Participant Non-Regulatory Halt and Resume
3.1.3	Market Center Open Price	<ul style="list-style-type: none"> Use of new sale condition which indicates a Market Center's official opening price
3.1.4	Extended Hours Sale Condition	<ul style="list-style-type: none"> Use of new sale condition which is used when a trade is executed outside of normal trading hours and reported late
3.1.5	Mass Trade Cancel	<ul style="list-style-type: none"> Procedures to follow when Participants request a mass trade cancel function to be performed by the UTP SIP Supervisor
3.2.1; 3.3.1; 3.4.1; 3.5.1	New Sale Conditions and message reject conditions	<ul style="list-style-type: none"> "Q" – will identify a Market Center's official open price "U" – will identify a transaction executed during non-regular market hours and reported more than 90 seconds after execution Reject for transactions which include odd lots
4.2.1	Trading Action Message	<ul style="list-style-type: none"> Reason Code field populated with values
4.3	Participant Non-Regulatory Market Center Trading Action Message	<ul style="list-style-type: none"> Description of field values, processing, and rejects
Input Error Conditions	Reject 29	<ul style="list-style-type: none"> "Report Volume is zero and sale condition does not equal M or Q. Transaction contains volume of less than 100 shares
	Reject 77	<ul style="list-style-type: none"> Invalid Reason Code

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Revisions Table: version 01/07/2005

Section	Revision Subject	Description
1.1	Operational Hours	<ul style="list-style-type: none"> Revised the UTP Quote Line operational hours to begin at 4:00 a.m. ET
2.2.5	Message Header	<ul style="list-style-type: none"> Added to MHORIG and MHDEST the two new market participant ID's (NU = New York Stock Exchange; WU = Chicago Board Options Exchange)
3.1.4	Extended Hours (sold out of sequence) sale condition	<ul style="list-style-type: none"> Modified the operational hours to reflect 04:00 am.

Revisions Table: version 01/07/2005

Section	Revision Subject	Description
Input Error Conditions	Reject 29	<ul style="list-style-type: none"> "Report Volume is zero and sale condition does not equal M or Q. Transaction contains volume of less than 100 shares

Revisions Table: version 08/05/2005

Section	Revision Subject	Description
Input Error Conditions	Sale Condition - TRCOND	<ul style="list-style-type: none"> Added .Y as an eligible sale condition for original trade reports, trade report cancels. Trade reports corrections, As-of trade reports.

Revisions Table: version 11/07/2005

Section	Revision Subject	Description
2.2.5	Message Header	<ul style="list-style-type: none"> Added to MHORIG and MHDEST the two new market ID's (IU = International Securities Exchange; QL = The Trade Reporting Facility).
2.2.5	Message Header	<ul style="list-style-type: none"> Removed the market participant ID for New York Stock Exchange (NU) from the MHORIG and MHDEST.

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Revisions Table: version 8/23/2006

Section	Revision Subject	Description
1.1	Operational Hours	<ul style="list-style-type: none"> Revised the UTP Quote Line operational hours to end at 8:00 p.m. ET
2.2.5	Message Header	<ul style="list-style-type: none"> Added to MHORIG and MHDEST the new market ID's for each existing participant to facilitate their own TRF relationship.
2.2.8	Message Category & Type Definitions	<ul style="list-style-type: none"> Modified values in relation to the Reg NMS and symbology initiative.
3.1.6	Reg NMS Changes	<ul style="list-style-type: none"> Added section to describe Reg NMS changes.
3.1.7	UTP Symbology Change	<ul style="list-style-type: none"> Added section to describe NASDAQ Listing Market Symbology Initiative.
3.2	Regular Trade Report Message	<ul style="list-style-type: none"> Modified section to include new enhanced messages in support of the Reg NMS and NASDAQ symbology initiatives.
3.3	Cancel/Error Message	<ul style="list-style-type: none"> Modified section to include new enhanced messages in support of the Reg NMS and NASDAQ symbology initiatives.
3.4	Correction Message	<ul style="list-style-type: none"> Modified section to include new enhanced messages in support of the Reg NMS and NASDAQ symbology initiatives.
3.5	As/Of Message	<ul style="list-style-type: none"> Modified section to include new enhanced messages in support of the Reg NMS and NASDAQ symbology initiatives.
4.2	Trading Action Message	<ul style="list-style-type: none"> Modified section to include new enhanced message in support of the NASDAQ symbology initiative.
4.3	Non Regulatory Market Center Trading Action Message	<ul style="list-style-type: none"> Modified section to include new enhanced message in support of the NASDAQ symbology initiative.

Revisions Table: version 10/12/2006

Section	Revision Subject	Description
Various	Sale Condition Values	<ul style="list-style-type: none"> Removed value "N" from byte level 4 throughout the document. This was a documentation error and this value is valid in byte level 1 only. Removed <space> as an allowable value in byte level 1. Participants must provide a settlement value.

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Revisions Table: version 03/05/2007

Section	Revision Subject	Description
2.2.5	Message Header	<ul style="list-style-type: none"> Added to MHORIG and MHDEST the new market ID's (NU = New York Stock Market LLC; NL = New York Stock Exchange LLC TRF).

Revisions Table: version 06/13/2007

Section	Revision Subject	Description
2.2.8	Message Category & Type Definitions	<ul style="list-style-type: none"> Modified to reflect current supported messages.
Various	Supported message formats	<ul style="list-style-type: none"> Removed all message formats that are no longer supported.
Various	NASD enhancement request	<ul style="list-style-type: none"> Modified all message formats to reflect the NASD request to allow Cash ("C"), Next Day ("N"), and Seller's Option ("R") settlement modifiers to be submitted in the Level 1 Byte field when trade through exempt flag is <space>

Revisions Table: version 06/29/2007

Section	Revision Subject	Description
3.2.1; 3.3.1; 3.4.1; 3.5.1 6.0	New Sale Conditions added	<ul style="list-style-type: none"> "H" – The Price Variation Trade sale condition code is used to denote a regular market session trade transaction that carries a price that is significantly away from the prevailing consolidated or primary market value at the time of the transaction. Price Variation Trade transactions will be included in daily volume statistics but will not be eligible for inclusion in the high price, low price or last sale price statistics at either the consolidated or market center level. The Price Variation Trade value "H" will appear in Level 4 of the extended sale condition modifier field on the UTDF and CTS data feeds. "X" – The Cross Trade modifier will be available to any participant to distinguish a trade resulting from a market center's crossing session. Cross Trade transactions will be included in all daily statistical calculations including high price, low price, last sale price and volume at both the consolidated and market center level. The Cross Trade value "H" will appear in Level 4 of the extended sale condition modifier field on the UTDF and CTS data feeds.

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Revisions Table: version 10/26/2007

Section	Revision Subject	Description
3.2.1; 3.3.1; 3.4.1; 3.5.1 6.0	New Sale Condition added	<ul style="list-style-type: none"> Stock-Option Trade Report ("V"): The Stock-Option Trade sale condition code is used to identify cash equities transactions which are related to options transactions and therefore potentially subject to cancellation if market conditions of the options leg(s) prevent the execution of the stock-option order at the price agreed upon. Stock-Option Trade transactions will be included in daily volume statistics and will be eligible for inclusion in the high price, low price and last sale price statistics at the consolidated and market center level. The Stock-Option Trade value "V" will appear in Level 4 of the extended sale condition modifier field on the UTDF and CTS data feeds.
Various	Financial Industry Regulatory Authority (FINRA) name change request. Formerly NASD.	<ul style="list-style-type: none"> Modified the document to reflect the name change request from FINRA.

Revisions Table: version 02/06/2008

Section	Revision Subject	Description
2.2.8	Message Category & Type Definitions	<ul style="list-style-type: none"> Modified to reflect current supported messages.
2.2.5	Message Header	<ul style="list-style-type: none"> Modified MHMSN in the header to reflect the increased bytes size of 8 Bytes.
Various	Modified documentation to reflect the approved increase in message sequence number from 7 bytes to 8 bytes.	<ul style="list-style-type: none"> Hot Cut release to modify the following message types resulting from the message header change: <ul style="list-style-type: none"> 3.3.1 Cancel/Error Message Format 3.4.1 Correction Trade Report Format 4.4.1 Reject Message 5.4.1 Sequence Information

Revisions Table: version 4/17/2008

Section	Revision Subject	Description
3.1.10	Emergency Market Condition Control Message	<ul style="list-style-type: none"> Added description for modification to Circuit Breaker Event Processing
5.0	Added new Emergency Market Control Message	<ul style="list-style-type: none"> Modified Section to add new Emergency Market – Quote Resume message (Category C – Type R) Renumbered section

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Revisions Table: version 9/10/2008

2.2.5	Message Header	<ul style="list-style-type: none"> Added to MHORIG and MHDEST the new market participant ID (ZU = BATS Exchange Inc)
Various	Modified Document to reflect corporate name changes	<ul style="list-style-type: none"> Throughout document. Modified documentation to reflect corporate name changes.

Revisions Table: version 9/10/2009

2.2.5	Message Header	<ul style="list-style-type: none"> Added to MHORIG and MHDEST the new market ID's in support of the new exchange registrations for BATS and Direct Edge.
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Revisions Table: version 6/30/2010

Section	Revision Subject	Description
4.3	Non Regulatory Market Center Trading Action	<ul style="list-style-type: none"> With the recent SEC regulation changes associated with trading pauses and volatility halts the UTP SIP is modifying the Market Center Trading Action message name. Recent activity in the market place does necessitate the requirement to allow for market center specific trading actions that are regulatory in nature.

Revisions Table: version 7/15/2010

Section	Revision Subject	Description
Various	Introduced new messaging for SEC Reg SHO Short Sale Trade Restricted Indicator	<ul style="list-style-type: none"> Added new message format used in identifying securities that are subject to the short sale restriction rules set forth by the SEC.

Revisions Table: version 6/12/2012

Section	Revision Subject	Description
Various	Major message format release <ul style="list-style-type: none"> Message Header MWCB Messages Listing Opening Reference Midpoint 	<ul style="list-style-type: none"> Introduced a new message header version which modifies the date/time to time only Introduced new Market Wide Circuit Breaker messaging Introduce a new Listing market opening reference midpoint message Included new reason codes for Halt messages

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Revisions Table: version 9/20/2012

Section	Revision Subject	Description
Various	Postponement of Message Header Changes	<ul style="list-style-type: none"> New message header version changes have been postponed until after LULD implementation. <ul style="list-style-type: none"> New Date will be announced. Updated the Allowable Values for Reason Code

Revisions Table: version 01/14/2013

Section	Revision Subject	Description
4.2	Trading Action Reason Codes	<ul style="list-style-type: none"> Updated the Allowable Values for Reason Code <ul style="list-style-type: none"> Added MWC0 – Market Wide Circuit Breaker – Carry over prior day

Revisions Table: version 06/24/2013

Section	Revision Subject	Description
Various	Introduce new trade modifiers Introduce new financial status indicator	<ul style="list-style-type: none"> Removed reference to the message Header changes Introduce new trade modifiers: <ul style="list-style-type: none"> Odd Lot trade reports Corrected Consolidated Close (per listing market) Introduce new financial status indicator <ul style="list-style-type: none"> Creations and/or Redemptions Suspended for Exchange Traded Product
	Removed all reference to the Emergency Market Condition Control Messages	Support of the Emergency Market Messages was discontinued with the Market Wide Circuit Breaker messages implementation in April 2013.

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Revisions Table: version 09/15/2014

Section	Revision Subject	Description
Various	Document clean-up to support recommendation from 2014 SEC ARP review on error code documentation	<ul style="list-style-type: none"> • Various changes to error code references within defined messaging per SEC ARP recommendations. <ul style="list-style-type: none"> • Message Length (#10) • Market Center Not Authorized (#38) • text message does not match the pre-defined format (#72) • Invalid Market Wide Circuit Breaker Declined (#81)
4.5	Market Wide Circuit Breaker Decline Level Message	<ul style="list-style-type: none"> • Removed from Document as this message is not supported. • Revised section numbering as a result of this removal.
4.6	Market Wide Circuit Breaker Status Message	<ul style="list-style-type: none"> • Removed from Document as this message is not supported. • Revised section numbering as a result of this removal.
5.1-5.3	Emergency Market Messages	<ul style="list-style-type: none"> • Removed from Document as this message is not supported. • Revised section numbering as a result of this removal.
Appendices	A - Input Error Conditions	<ul style="list-style-type: none"> • Removed Error Conditions no longer supported. <ul style="list-style-type: none"> • Market Center Not Authorized (#38) • text message does not match the pre-defined format (#72) • Invalid Market Wide Circuit Breaker Declined (#81) • Invalid Symbol (#75)

Revisions Table: version 10/27/2014

Section	Revision Subject	Description
2.2.5	Message Header	Modified Header to accommodate the Participant TimeStamp changes.
5	Control Messages	Modified Control Message to reflect modified message header format

Revisions Table: version 2/06/2015

Section	Revision Subject	Description
2.2.5	Message Header	Modified Header to accommodate the addition of a second Participant TimeStamp.
5	Control Messages	Modified Control Message to reflect modified message header format

Revisions Table: version 2/06/2015

Section	Revision Subject	Description
2.2.5	Message Header	Modified Header to include the committee definitions for the new Participant Timestamps.

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Revisions Table: version 2/25/2015

Section	Revision Subject	Description
Various	Modified Sale Condition Values	<ul style="list-style-type: none">• Redefine the existing Stock Option Trade (V) modifier• Introduce a new Qualified Contingent Trade (7) modifier

Revisions Table: version 11/16/2015

Section	Revision Subject	Description
2.2.5	Message Header	<ul style="list-style-type: none">• Added to MHORIG and MHDEST the new market participant ID (VU = Investors' Exchange LLC)

UTP Participant Trade Line Specification

1. Introduction

The UTP Trade Communications Interface utilizes the TCP/IP protocol with 56 KB, T1 and fractional T1 circuits. The requirements for the TCP/IP Interface are described in section 2.

1.1. General Description

The SEC has granted Unlisted Trading Privileges (UTP) on selected NASDAQ securities to those Exchanges seeking such privileges. Each Exchange Participant which elects to trade a UTP issue must forward trade information to the Securities Information Processor, SIP, via a Computerized Participant Line. Each Exchange will utilize their own separate participant line(s) into the SIP, or the Exchanges may share a common participant line from a central point.

Each Exchange Participant will be responsible for the collection and validation of last sale reports within their own system prior to transmitting this data to the SIP. The UTP Participant Trade Line will operate from 4:00 a.m. ET through 8:00 p.m. ET each business day.

The SIP, in turn, will disseminate consolidated Trade Information for all Eligible Issues via the SIP Trade Service.

2. Introduction: SIP UTP Interface Method

This chapter defines transmission, line discipline, message store and error recovery procedures. These definitions are necessary for computer-to-computer communications between the SIP UTP system and the participant systems.

Any participant may input to UTP over one or more logical TCP/IP connections. Each logical connection is considered a complete independent entity. UTP will not attempt to correlate input coming in over these multiple inputs. Participants with multiple input connections should insure that all transactions for any given symbol (e.g. AAAA) are transmitted on the same line throughout the day. Should any transaction for the same symbol be transmitted simultaneously over separate connections, the order of the input **will not** be guaranteed.

Error recovery techniques, such as communications hardware error detection and retries, allow a choice of user options. This permits the application modules to concern themselves with "higher level" error recovery, i.e. resetting the logical connection, etc. As part of this recovery, each participant will be supplied with four IP addresses - two for the primary Data Center and two for the disaster recovery facility. The primary site will have two active addresses to be used by each participant. In the event the primary is unavailable, each participant will be informed to switch to the disaster recovery facility and IP addresses.

2.0.1 Restart Considerations

Restart considerations essentially involve getting the system back into sync from the point of failure. This is achieved through the use of sequence numbers in the message header. All records contain a sequence number that will provide checkpoints between the systems. The sequence number of the last record sent and received is maintained throughout the trading day. This will facilitate trapping duplicates and maintaining data integrity. However, sequence numbers will not increment indefinitely throughout the trading day. When the sequence number reaches 99999999, the next value will be 1.

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2.0.2 General Design Considerations

UTP receives and transmits variable length blocks having a maximum length of 1004. The length includes a Block Length Header, text and control characters. The number of messages contained in a block are variable. The end of each message is delimited by a Unit Separator character (US), except for the last message in the block, which ends with ETX.

Important Note: Section 2.2.10 outlines the need for a PAD character in the event of odd numbered block length, please read the section carefully.

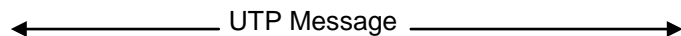
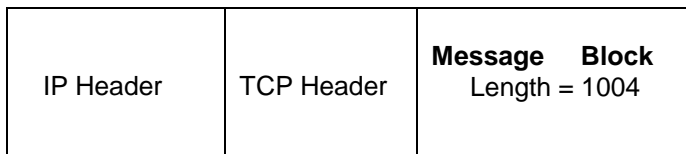
All transmissions are performed using the USASCII character set. See table 2-1 for the Modified USA Standard Code for Information Interchange.

Table 2-1

bit 7	-----	-----	-----	---→	0	0	0	0	1	1	1	1
bit 6	-----	-----	-----	---→	0	0	1	1	0	0	1	1
bit 5	-----	-----	-----	---→	0	1	0	1	0	1	0	1
bit 4	bit 3	bit 2	bit 1		0	1	2	3	4	5	6	7
0	0	0	0	0	NUL	DLE	SP	0	@	P	`	p
0	0	0	1	1	SOH	DC1	!	1	A	Q	a	q
0	0	1	0	2	STX	DC2	“	2	B	R	b	r
0	0	1	1	3	ETX	DC3	#	3	C	S	c	s
0	1	0	0	4	EOT	DC4	\$	4	D	T	d	t
0	1	0	1	5	ENQ	NAK	%	5	E	U	e	u
0	1	1	0	6	ACK	SYN	&	6	F	V	f	v
0	1	1	1	7	BEL	ETB	'	7	G	W	g	w
1	0	0	0	8	BS	CAN	(	8	H	X	h	x
1	0	0	1	9	HT	EM	)	9	I	Y	i	y
1	0	1	0	10	LF	SUB	*	:	J	Z	j	z
1	0	1	1	11	VT	ESC	+	;	K	1/4	k	1/2
1	1	0	0	12	FF	FS	,	<	L	\	l	1/8
1	1	0	1	13	CR	GS	-	=	M	3/4	m	7/8
1	1	1	0	14	SO	RS	.	>	N	3/8	n	5/8
1	1	1	1	15	SI	US	/	?	O	_	o	DEL

Note: Leading Pad = FF ACK0 = DLE0 WACK = DLE;
 Trailing Pad = FF ACK1 = DLE1 RVI = DLE<
 ITB = US

2.1. UTP Message Format

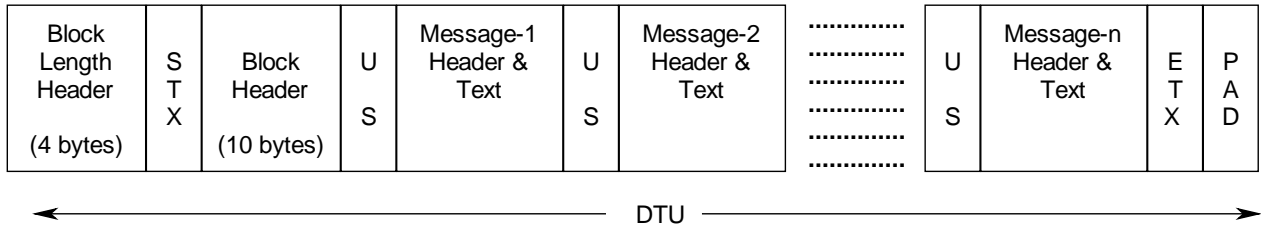


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The Message Block is the data that will be built and sent by the Participant and received by the UTP/IP - SIP Line Handler.

2.2. The Message Block Format

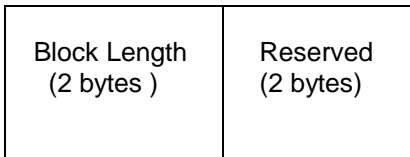
The Message Block is used for sending and receiving UTP Messages through the IP network. The Format of the Message Block is as follows:



2.2.1. Block Length Header

The Block Length Header is the total length of the block including the length of this header. This is a 4 byte binary (not ASCII) field. The byte ordering is left to right, meaning the left byte is most significant, the right byte, least significant.

Maximum Block Length is 1004 bytes. No message can span message boundaries.

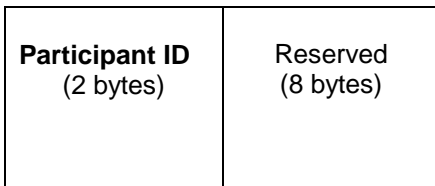


← Block Length Header →

2.2.2. STX Start of Text

2.2.3. Block Header

This is a 10-byte field. The first 2 bytes represent the Participant ID; the remaining 8 bytes are reserved.



2.2.4. US Unit Separator

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2.2.5. Message Header

Approved Changes:

In January 2015, the committee has requested that the SIP add an additional timestamp that would be provided by participants. This will create two new timestamps being provided by participants for inclusion on the outbound data services. The new timestamps definitions are being determined and will be provided as soon as they become available.

With the recent addition of the second timestamp requirement the Message Header release will be revised and the following proposed changes are now schedule to be implemented in July2015.

As requested by the Policy/Technical Committees, the SIPs will make modifications to the Message Header Protocol to support Participant Timestamp information in the inbound protocol specifications and the outbound data feed specifications (UQDF, UTDF & OMDF).

Additionally, as agreed to by the Participants and the SIPs, a new Transaction ID field will be supported in the Outbound Services. The Output Transaction ID information is intended for use by Participants/SIPs only and will be identified as 'Reserved for Internal Use' on the Output Specifications.

SIP Front End Processor (FEP) software will be backward compatible, allowing participants to transition from current data content to new data content. Existing message header formats and types will be used; data content will differ as follows:

- Message Destination (MHDEST) field:
 - From participant to SIP, the values of this field will be changed as follows:
 - "SU": destination is SIP, data content is in old (current) format
 - "S1": destination is SIP, data content is in new (proposed) format
 Participants providing the new (proposed) data content should specify "S1" as the destination; participants should continue to send "SU" until they are ready for the transition.
 - From SIP to participant, there are no new values for this field.
- Originating Participant (MHORIG) field:
 - From participant to SIP, there are no new values for this field.
 - From SIP to participant, the values of this field will be changed as follows:
 - "SU": originator is SIP, data content is in old (current) format
 - "S1": originator is SIP, data content is in new (proposed) format
 The SIP will continue to provide a value of "SU" until all participants have transitioned; after transition is complete, the SIP will provide a value of "S1".
- A Reserved Field will be added to accommodate for the reduction in size of the DATETM field
- Date/Time (DATETM) field will be redefined and renamed (PARTTM) to be used by participants to provide the Participant Timestamp in terms of the number of microseconds since midnight EST. The value will be a 6-byte string of ASCII-displayable characters relative to ASCII space (" ") representative of a base95 number, as follows:

Event	Wall Time ET	base95						Microseconds from midnight
SOD	03:58:00.000000	!	p	>	N	L	M	14280000000
Participant entry	04:00:00.000000	!	q	k	J	r	C	14400000000
Market Open	09:30:00.000000	\$	G	t	2	a		34200000000
Random Time	10:15:05.123456	\$	i	)	>	A	g	36905123456
Market Close	16:00:00.000000	'	J	0	I	L	M	57600000000
EOD	20:10:00.000000)	D	@	&	?	>	72600000000
EOT	20:16:00.000000)	H	g	z	R		72960000000

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Please Note: For the Market Close Example the base95 code is: ('J0ILM = "single quote, Uppercase J, zero, lowercase L, uppercase L, Uppercase M)

- MHDEST (message destination) Usage of this field is required when a participant specifies a "new content" message (i.e. MHDEST = "S1"); the field will be subjected to gross validation (i.e. does the field contain allowable characters) and rejected if it fails validation.
- MHREGREF (regional reference number) field will be used to compose a transaction identifier field in the resulting quote / trade message disseminated on the UTP data feeds. Usage of this field is required when a participant specifies a "new content" message (i.e. MHDEST = "S1"); the field will be subjected to gross validation (i.e. does the field contain allowable characters?) and rejected if it fails validation.
- A second participant timestamp field will be made available to be used by participants to provide the Participant Timestamp in terms of the number of microseconds since midnight EST. The value will be a 6-byte string of ASCII-displayable characters relative to ASCII space (" ") representative of a base95 number.

Transition Period:

The UTP SIP will support a transition period in order for participants to implement the new message format. Certain message types transmitted by the UTP SIP (e.g. reject, sequence number information) are generated in response to a transaction received from the participant; for the response to these message types, the UTP SIP will provide the same format as received from the participant (e.g. if new format received, return in new format). The UTP SIP also generates several types of messages in an unsolicited manner and transmits them to participants via participant input line; in these cases, the UTP SIP does not have a transaction upon which to base its message formatting decision.

Upon initial implementation of the software to support the timestamp initiative, the UTP SIP will:

- Generate all unsolicited messages in the old message format
- Format the response to a transaction based on the format received from the participant (old format input = old format response, new format input = new format response)

When a participant implements the change to submit transactions in the new format, that participant must be able to receive messages from the UTP SIP in either old format or new format.

After all participants have transitioned to the new message format, the UTP SIP will:

- Generate all unsolicited messages in the new message format
- Format the response to a transaction in new message format

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The following table illustrates all of the different message types that may be sent from the UTP SIP to participants via participant input lines, and what format of the message should be expected by participants both during and after the transition period.

Message from SIP to Participant	MSCA	MSTY	MHDEST	Response or		During Transition		Post-Transition	
				Participant-Supplied Message from SIP	Unsolicited Message Recipient(s) of Message	Message Format from SIP	MHORIG from SIP	Message Format from SIP	MHORIG from SIP
Reject Message	A	R	SU	response	sender only	old	SU	new	S1
Reject Message	A	R	S1	response	sender only	new	S1	new	S1
Sequence Number Information	C	Q	SU	response	sender only	old	SU	new	S1
Sequence Number Information	C	Q	S1	response	sender only	new	S1	new	S1
Market Open (Participant)	A	X	SU	unsolicited	all	old	participant ID	new	participant ID
Market Open (Participant)	A	X	S1	unsolicited	all	old	participant ID	new	participant ID
Market Open (SIP)	A	X	n/a	unsolicited	all	old	SU	new	S1
Market Close (Participant)	A	Y	SU	unsolicited	all	old	participant ID	new	participant ID
Market Close (Participant)	A	Y	S1	unsolicited	all	old	participant ID	new	participant ID
Market Close (SIP)	A	Y	n/a	unsolicited	all	old	SU	new	S1
Administrative Message	A	A	n/a	unsolicited	all	old	SU	new	S1
Market Center Trading Action	A	J	n/a	unsolicited	all	old	SU	new	S1
Start of Day	C	E	n/a	unsolicited	all	old	SU	new	S1
End of Participant Reporting	C	G	n/a	unsolicited	all	old	SU	new	S1
End of Day	C	F	n/a	unsolicited	all	old	SU	new	S1
Line Integrity	C	H	n/a	unsolicited	all	old	SU	new	S1

Timestamp 1:

A participant-provided timestamp representing the number of microseconds since midnight EST. The value will be a 6-byte string of ASCII-displayable characters relative to ASCII space (" ") representative of a base95 number. The SIP will simply pass through the value provided by the participant where applicable; for transactions originating from participants not using the new input content and for SIP-generated messages, this field will contain all space (six ASCII ' ' characters).

- **If from an Exchange:** denotes the Exchange Matching Engine Publication timestamp for a transaction. Exchanges use a clock sync methodology ensuring that timestamps are accurate within tolerances of 100 microseconds or less.
- **If from the FINRA Alternative Display Facility (ADF) and/or a FINRA Trade Reporting Facility (TRF):** denotes the time of execution that a FINRA member reports to the FINRA ADF or a FINRA TRF. FINRA shall convert times that its members report to it in seconds or milliseconds to microseconds and shall provide such times to the Processor in microseconds since midnight.

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Timestamp 2:

Will be used by the FINRA ADF and/or a FINRA TRF to provided timestamp representing the number of microseconds since midnight EST. The value will be a 6-byte string of ASCII-displayable characters relative to ASCII space (" ") representative of a base95 number. The SIP will simply pass through the value provided by the participant where applicable; for transactions originating from participants not using the new input content and for SIP-generated messages, this field will contain all space (six ASCII ' ' characters).

- **If from an Exchange:** Timestamp 2 will be blank.
- **If from the FINRA Alternative Display Facility (ADF) or a FINRA Trade Reporting Facility (TRF):**
 - **If the FINRA ADF or a FINRA TRF provides a proprietary feed of trades reported by the facility, then the FINRA facility will publish the time of the transmission as also published on the facility's proprietary trade feed.** The TRF or ADF shall convert times that it reports trades on its proprietary trade feed in seconds or milliseconds to microseconds and shall provide such times to the Processor in microseconds since midnight Eastern Time (ET).
 - **If the FINRA ADF or the FINRA TRF facility does not have a proprietary trade feed, Timestamp 2 will be blank.**

Message Header This must precede each message text segment:

2.2.5.1. Old (Existing) Message Format: 29 bytes (SU message destination)

MHCAT	MHTYPE	MHORIG	MHDEST	MHMSN	DATETM	MHREGREF	MHSTAT
1	1	2	2	8	7	7	1

2.2.5.2. New (Proposed) Message Format: 35 bytes (S1 message destination)

MHCAT	MHTYPE	MHORIG	MHDEST	MHMSN	Reserved	PARTTM
1	1	2	2	8	1	6
MHREGREF	MHSTAT	TMSTMP				
7	1	6				

Field Definitions:

Field Name	Characters	Field Description
MHCAT	1	Message Category: Refer to Section 2.2.8 for Category Definitions
MHTYPE	1	Message Type: Refer to Section 2.2.8 for Category Definitions
MHORIG	2	Originating Participant: This field represents the Market (or Processor) responsible for generating the message to the UTP Participant Line. Under certain circumstances, one Market may act as an agent and deliver data on behalf of another Market. If this type of contractual arrangement is made, the Originator Id in the format must represent the Market responsible for the trade message and not the Market acting as agent. AU – NYSE MKT AL – NYSE MKT TRF facility BU – NASDAQ OMX BX BL – NASDAQ OMX BX TRF facility CU – National Stock Exchange Inc CL – National TRF facility IU – International Securities Exchange, LLC IL – International Securities Exchange TRF facility JU – EDGA Exchange, Inc JL – EDGA TRF Facility KU – EDGX Exchange, Inc KL – EDGX TRF Facility

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		<p>MU – Chicago Stock Exchange ML – Chicago TRF facility ND – Financial Industry Regulatory Authority, Inc. NU - NYSE Euronext NL - NYSE Euronext TRF PU – NYSE Arca, Inc. PL – NYSE Arca TRF facility QU – NASDAQ Stock Market, LLC QL – The Trade Reporting Facility VU – Investors' Exchange LLC VL - Investors' Exchange LLC TRF WU – Chicago Board Options Exchange, Inc WL – Chicago Board Options Exchange TRF facility XU – NASDAQ OMX PHLX, Inc. XL – NASDAQ OMX PHLX TRF Facility YU – BATS Y-Exchange, Inc. YL – BATS Y-Exchange TRF Facility ZU – BATS Exchange Inc. ZL – BATS TRF facility SU – SIP Central Processor data content is in old (existing) format S1 - SIP Central Processor data content is in new (proposed) format</p>
MHDEST	2	<p>Message Destination: AU – NYSE MKT AL – NYSE MKT TRF facility BU – NASDAQ OMX BX BL – NASDAQ OMX BX TRF facility CU – National Stock Exchange Inc CL – National TRF facility IU – International Securities Exchange, LLC IL – International Securities Exchange TRF facility JU – EDGA Exchange, Inc JL – EDGA TRF Facility KU – EDGX Exchange, Inc KL – EDGX TRF Facility MU – Chicago Stock Exchange ML – Chicago TRF facility ND – Financial Industry Regulatory Authority, Inc. NU - NYSE Euronext NL - NYSE Euronext TRF PU – NYSE Arca, Inc. PL – NYSE Arca TRF facility QU – NASDAQ Stock Market, LLC QL – The Trade Reporting Facility VU – Investors' Exchange LLC VL - Investors' Exchange LLC TRF WU – Chicago Board Options Exchange, Inc WL – Chicago Board Options Exchange TRF facility XU – NASDAQ OMX PHLX, Inc. XL – NASDAQ OMX PHLX TRF Facility YU – BATS Y-Exchange, Inc. YL – BATS Y-Exchange TRF Facility ZU – BATS Exchange Inc. ZL – BATS TRF facility SU – SIP Central Processor data content is in old (existing) format S1 - SIP Central Processor data content is in new (proposed) format LU – All UTP Participants</p>
MHMSN	8	<p>Message Sequence Number: A number greater by one than the previous sequence number.</p>

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Reserved	1	Field will be reserved for future use
DATETM	7	<p>Date/Time: The date and time the message was created in the Participants system. Date/Time field is YYMDHMS</p> <p>NOTE: This format will continued to be supported for participant's submitting with the old header and setting the MHDEST to "SU".</p> <p>OR:</p> <p>NOTE: the following format will be supported when the MHDEST is submitted as "S1".</p>
Reserved	1	A new 1 byte reserved field will be added preceding the PARTTM
PARTTM	6	<p>Date/Time (DATETM) field will be redefined and renamed (PARTTM)</p> <p>TimeStamp1 - A participant-provided timestamp representing the number of microseconds since midnight EST. The value will be a 6-byte string of ASCII-displayable characters relative to ASCII space (" ") representative of a base95 number. The SIP will simply pass through the value provided by the participant where applicable; for transactions originating from participants not using the new input content and for SIP-generated messages, this field will contain all space (six ASCII ' ' characters). Refer to Appendix C for definitions</p> <ul style="list-style-type: none"> • If from an Exchange: denotes the Exchange Matching Engine Publication timestamp for a transaction. Exchanges use a clock sync methodology ensuring that timestamps are accurate within tolerances of 100 microseconds or less. • If from the FINRA Alternative Display Facility (ADF) and/or a FINRA Trade Reporting Facility (TRF): denotes the time of execution that a FINRA member reports to the FINRA ADF or a FINRA TRF. FINRA shall convert times that its members report to it in seconds or milliseconds to microseconds and shall provide such times to the Processor in microseconds since midnight Eastern Time (ET).
MHREGREF	7	<p>Regional Reference Number: For Participant's optional use; NUL filled when not used.</p>
MHSTAT	1	<p>Possible Duplication Flag: The Central Processor will check to determine if the message has already been processed. If so, the message will be ignored. Associated values are: 0 – No duplicate 1 – Possible duplicate</p>
TMSTMP	6	<p>TimeStamp 2: Will be used by the FINRA ADF and/or a FINRA TRF to provided timestamp representing the number of microseconds since midnight EST. The value will be a 6-byte string of ASCII-displayable characters relative to ASCII space (" ") representative of a base95 number. The SIP will simply pass through the value provided by the participant where applicable; for transactions originating from participants not using the new input content and for SIP-generated messages, this field will contain all space (six ASCII ' ' characters). Refer to Appendix C for definitions</p> <ul style="list-style-type: none"> • If from an Exchange: Timestamp 2 will be blank.

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		<ul style="list-style-type: none"> • <u>If from the FINRA Alternative Display Facility (ADF) or a FINRA Trade Reporting Facility (TRF):</u> <ul style="list-style-type: none"> ○ If the FINRA ADF or a FINRA TRF provides a proprietary feed of trades reported by the facility, then the FINRA facility will publish the time of the transmission as also published on the facility's proprietary trade feed. The TRF or ADF shall convert times that it reports trades on its proprietary trade feed in seconds or milliseconds to microseconds and shall provide such times to the Processor in microseconds since midnight Eastern Time (ET). ○ If the FINRA ADF or the FINRA TRF facility does not have a proprietary trade feed, Timestamp 2 will be blank.
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Note if the message sequence number is reset to 1 and data are sent with the possible dup flag "1", SIP will not reject the data.

2.2.6. Message Header Validation

Note: These Error Codes are a subset of a more comprehensive list. The entire list of Error Codes and Descriptions can be found in Section 4 of this document.

<u>Error Code</u>	<u>Reject Description</u>
1	Invalid Message Category (MHCAT) and Type (MHTYPE) a. If other than specified Category and Type codes in Section 2.2.8 b. If other than valid combination of Category and Type codes (Refer to Section 2.2.8)
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
4	Invalid Possible Duplicate Flag (MHSTAT)
7	Missing Message - The current Message Sequence Number is greater than expected. The SIP accepts the message
8	Duplicate Message - The current MSN is less than or equal to the last message processed. The expected MSN is not incremented. The SIP does not accept the message
11	System Not Open a. A trade report was transmitted to the SIP before the Trade Report SOD message was disseminated by the SIP, or b. After the Exchange Participant EOPR Trade Message was transmitted to the SIP or; c. After the EOPR Trade message was disseminated to the Exchange Participant
12	Sequence Number Not Numeric
60	Invalid Date and Time
61	Regional Reference Number not numeric or NUL

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2.2.7. Message Sequence Number System Requirements

The message sequence number incorporates specific logic that should be adhered to, based on the guidelines below, for each of the message types described:

Trade Messages: Includes Trade Report, Trade Cancel/Error, Trade Correction, and As/Of Trade Report. These messages should include a sequence number of one greater than the previous non-null message sequence number in the Message Header.

Administrative Messages: Includes General Administrative, Trading Action, Market Open, and Market Closed. These messages should include a sequence number of one greater than the previous non-null message sequence number in the Message Header. The Reject Administrative Message should include a sequence number of one greater than the previous non-null message sequence number in all cases except for rejects 4, 7, 8 and 12. These rejects will contain a null value for the message sequence number.

Control Messages: Includes Emergency Market Halt, Emergency Market Resume, Sequence Number Information, Start of Day, End of Participant Reporting Trades, End of Day, and Time/Line Integrity Test. These messages should contain null values for the message sequence number. The Sequence Number Inquiry Message can include either a null value or an actual sequence number of one greater than the previous non-null message sequence number.

2.2.8. Message Text

- This is the actual message text for that Category.
- Fixed format or free-form text may follow the Message Header, depending on the Message Category that is transmitted.
- The text portion will contain a maximum of 300 characters.

2.2.9. Message Category and Type Definition

Category	Type	Origin	Definition
Trade Messages			
T	E	Participants	Trade Report
T	I	Participants	Trade Cancel/Error
T	J	Participants	Trade Correction Report
T	H	Participants	As/Of Trade Report
Administrative Messages			
A	A	All	Administrative Message
A	O	NASDAQ	Trading Action
A	J	SIP	Market Center Trading Action
A	1	TBD	Market Wide Circuit Breaker Decline Level message
A	2	TBD	Market Wide Circuit Breaker Status message
A	M	NASDAQ	Listing Market Opening Reference Midpoint
A	R	SIP	Reject Message
A	V	SIP	Reg SHO Short Sale Restricted Indicator
A	X	Participants	Market Open
A	Y	Participants	Market Closed
Control Messages			
C	A	NASDAQ	Emergency Market Condition - Halt
C	R	NASDAQ	Emergency Market Condition - Quote Resume
C	B	NASDAQ	Emergency Market Condition - Trade Resume

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C	C	Participants	Sequence Number Inquiry
C	Q	SIP	Sequence Number Information
C	E	SIP	Start of Day
C	G	All	End of Participant Reporting Trades
C	F	SIP	End of Day
C	H	SIP	Time/Line Integrity
C	J	All	Test

All - Exchange Participant, FINRA, SIP
SIP - Central Processor
Participants – Exchanges, NASDAQ, FINRA

2.2.10. ETX End of Text

Note: The UTP system requires the length of the block to be an 'even' number. In the event that the length of the block is not an even number, a PAD character is required after the ETX. This will be a Hex 'FF' character.

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3. Specific Message Text Formats

3.1. General Information

Three categories of messages may be transmitted on the Participant Trade Line. These categories include:

<u>Category</u>	<u>Function</u>
A	The A category messages can be either fixed field messages or free-form messages of variable length and format (e.g. Administrative Messages).
C	The C category messages, also known as Control messages, are fixed field messages transmitted to effect performance of a specified advisory or operational function. Except where noted otherwise (e.g. Time message) only one Control message will be transmitted in a block and no other messages should appear in that block.
T	The T category messages are fixed field messages for trading activity.

The Central Processor (SIP) as well as the Participants will have the ability to send and receive the appropriate A and C category messages via the Participant line. Only the Participants have the ability to send a T category message via the Participant line.

Every message text segment from the three categories must be preceded by the Message Header, as described in Section 2.2.5. In addition, an A or C category message may consist of a Message Header only or of a Message Header followed by a Message text segment. The following examples of each specific message type will assume that the message header is as defined, unless otherwise noted. Each category will be further delimited by its specific Type code (**Refer to Section 2.2.8**). The appropriate validations for the Category and Type will follow each individual section. The Trade Message text will be validated to ensure integrity of price information, if applicable. The SECID will also be validated to ensure it is UTP eligible.

If the input fails any of the message text validations, a reject message is returned to the Participant on the line from which the original message was sent. If the input passes these message validations, the Participant will not receive a positive acknowledgment that the message was accepted.

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3.1.1. Market Center Close Price

UTP Participants have the option (but are not required) to send the Securities Information Processor (SIP) a separate trade report message to provide the official market center close price at the end of the normal trade reporting window. The SIP will accept a new sale condition value of “M” for the market center-specific closing value. Messages sent to the SIP by a market center that include the market center close sale condition will only affect the underlying market center closing value and not the consolidated closing high, low, or last sale values for the specific issue. The consolidated last sale value will continue to be based on the last sale eligible trade report message received by the SIP from a UTP Participant with a consolidated last sale eligible sale condition.

System requirements that should be applied when submitting closing price messages to the SIP that include a market center close sale condition are stated below. Associated rejects that apply if validations are not passed for these messages are illustrated in sections 3.2-3.5.

- 1). If a UTP Participant chooses to use the market center close sale condition value “M”, the message including this value must be the final market center “last sale eligible” trade condition message sent via the UTP Participant Trade Line to the SIP. Under the current UTP Plan, UTP participants must submit last sale eligible trades within 90 seconds of the market close, and must identify trades reported after 4:01:30 p.m. ET with the appropriate sale condition prior to submission to the SIP.
- 2). UTP Participants must use trade correction message to modify a trade report message submitted to the SIP. This processing must be applied for messages previously sent that include the “M” sale condition. Within the trade correction message format, the “M” sale condition must be submitted in both the original and correction formats of the message.
- 3). UTP Participants may cancel a previously submitted trade report that included an .M sale condition via the Cancel/Error message. In cases where the SIP receives a trade report including a .M sale condition, and a .M sale condition transaction already exists, the SIP will reject the transaction if the previous .M sale condition trade has not been canceled in a separate transaction.
- 4). At the request of the market data industry, UTP Participants should cease canceling or correcting last sale eligible trades at 5:15 p.m. ET.

3.1.2. Stopped Stock and Sold Last Sale Conditions

The SIP has introduced inbound transaction processing rules that effect consolidated and market-specific last sale eligibility for transactions reported with certain sale conditions.

- Transactions that include the “L” (sold last) or “2” (stopped stock – sold last) sale conditions will only update the consolidated last sale if they have been received prior to the End of Last Sale Eligibility Control Message disseminated on UTDF at 16:01:30 p.m. ET. After this control message is received, transactions including these conditions will update the market-specific last sale value only.
- Transactions that include the “3” (stopped stock – out of sequence) sale condition will update the consolidated and market-center specific last sale only if they are the first trade transaction of the business day.

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3.1.3. Market Center Open Price

UTP Participants have the option (but are not required) to send the Securities Information Processor (SIP) a separate trade report message to provide the official market center open price after the commencement of the trading day. The SIP will accept a new sale condition value of "Q" for this purpose. Messages sent to the SIP by a market center that include the market center open sale condition will only affect the underlying market center high and low values and not the market center last, consolidated closing high, low, or last sale values for the specific issue. The market center specific and consolidated last sale value will continue to be based on the last sale eligible trade report message received by the SIP from a UTP Participant with a consolidated last sale eligible sale condition.

System requirements that should be applied when submitting opening price messages to the SIP that include a market center open sale condition are stated below. Associated rejects that apply if validations are not passed for these messages are illustrated in sections 3.2-3.5.

- 1). If a UTP Participant chooses to use the market center open sale condition value "Q", the message including this value may have zero or positive volume. However, the report volume is intended for informational purposes only and will not count toward any market statistics. Furthermore, the market center would continue to report the underlying trade details as separate transaction messages.
- 2). UTP Participants must use trade correction message to modify a trade report message submitted to the SIP. This processing must be applied for messages previously sent that include the "Q" sale condition. Within the trade correction message format, the "Q" sale condition must be submitted in both the original and correction formats of the message.
- 3). UTP Participants may cancel a previously submitted trade report that included a .Q sale condition via the Cancel/Error message. In cases where the SIP receives a trade report including a .Q sale condition, and a .Q sale condition transaction already exists, the SIP will reject the transaction if the previous .Q sale condition trade has not been canceled in a separate transaction.
- 4). There should be only one transaction report submitted to the SIP with a .Q sale condition. The SIP will not accept multiple trade reports with .Q sale conditions.

3.1.4. Extended Hours (sold out of sequence) sale condition

UTP Participants that execute trades outside of normal market hours (4:00 a.m. – 9:30 a.m. ET and 4:00:01 p.m. – 8:00 p.m. ET) and report them to the SIP more than 90 seconds after execution may identify these transactions with the sale condition of "U." These transactions will not impact market center or consolidated high, low, or last sale values, but will count toward issue and market volume statistics.

3.1.5. Mass trade cancel procedures

The UTP SIP Operator, on behalf of a Participant, may invoke a mass cancel function in order to remove trades that have been previously been reported to and disseminated by the SIP. This procedure is only available as a NASDAQ supervisory command, and not via any automated message outlined in this specification. The proper UTP SIP contact number to call to invoke this procedure is 212-231-5100.

The supervisory command allows the UTP SIP Operator to cancel trade reports and cancel trade corrections, but **cannot** support performing trade corrections or canceling trades previously cancelled or corrected. The UTP Participant may request a cancel of the following types of transactions:

- Cancel a single trade report for a Participant
- Cancel a continuous sequential range of trade reports for a Participant
- Cancel all trade reports for a Participant

When requesting a manual cancel the UTP Participant will be required to provide the following information:

- Market Center requesting the cancel process
- Inbound sequence number(s)
 - First sequence number to be cancelled along with the issue of the first trade. This must be provided even for "all" trade cancel requests.
 - Last sequence number to be cancelled along with the issue of the last trade. This must be provided even for "all" trade cancel requests.

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Note 1: Original trades that have been cancelled or corrected prior to a mass cancel request should not be included within the mass cancel sequence number range request. For example, a Participant elects to cancel trade reports 001-010. If sequence number 005 contains a trade report that has been cancelled or corrected prior to the mass trade cancel request, the Participant should not include sequence number 005 as part of the mass cancel request. Instead, the Participant should request sequence numbers 001-004 in one request and 006-010 in a second request to effectuate the desired mass cancel result.

Note 2: NASDAQ recommends Participants utilizing more than one input line for specific issue(s) transactions not use the mass trade cancel request due to the possibility of incorrect transactions being canceled.

Note 3: All messages within the requested sequence number range of transactions to be cancelled must be valid trade records or trade correction messages. If other message types are included within the requested sequence number range the entire cancel request will result in an error.

3.1.6. Reg. NMS Modifications to UTP Plan

In order to accommodate changes mandated by REG NMS, the UTP Plan is modifying input functionality used for both last sale and quote information.

This will require Participants to modify the way trades and quotes are submitted to the Plan in certain circumstances. Each Participant will utilize the new functionality in a way that is consistent with their rules. The Plan will use agreed upon general definitions as to what the identifiers mean in order to have consistency - but the determination as to whether an identifier will be required will be subject to the individual SRO rules. Further, it is possible that the Participants may not utilize a combination of identifiers in the same manner.

Use of Trade Identifiers – Last Sale Reporting

The UTP SIP will restructure the way trade reports are accepted from the Participants. Additionally the SIP will restructure the manner in which trade reports will be disseminated utilizing a new trade through exempt flag and a new four byte sale condition field that when used in combination and in specific order more fully describe the characteristics of that particular trade.

As part of SEC Regulation NMS UTP participants will be required to identify trade transactions that have been exempted from the trade through rule. In order to do so both the inbound and outbound specifications will be modified to include a new one byte value to identify trade through exempt prints. Additionally, UTP participants will be required to identify trade transactions with specific sale conditions which identify the exemption details.

3.1.7. UTP Symbology Changes effective January 31, 2007

Effective January 31, 2007, the NASDAQ Listing Market will have the capability to accept and distribute 1-, 2- and 3-character stock symbols for NASDAQ-listed issuers, in addition to the 4 or 5-character symbols currently used. NASDAQ plans to change its symbol suffix methodology to use a dot modifier schema for subordinate issue classes. For subordinate issue classes, the maximum symbol length will be 11 bytes, inclusive of suffixes.

In preparation for these system changes, the UTP SIP will modify its inbound participant line specifications to support a wider range of issue symbol formats. Specifically the inbound message formats will support both a long form and short form message or will replace, via a hot cut release, some existing messages.

3.1.8. Inbound Message Header Changes effective March 17, 2008

In order to be prepared for the growing traffic estimates from the UTP's, as well as being ready for a 2X peak volume day, the UTP SIP has received approval to modify the inbound message header to support an 8 byte inbound message sequence per port connection.

This enhancement will require significant inbound UTP participant message changes. This will not affect the outbound data dissemination.

The Inbound UTP connections currently use a 7-byte message sequence number for each UTP logical data channel (port) connection within the message header. For each data channel connection, the maximum message sequence number is 9,999,999. When the port connection hits the message sequence number limit the data channel connection will no longer be able to increase the message sequence number so that any data sent thereafter will be rejected by SIP even in the case that the message sequence number is reset to 1 (*).

UTP Participant Trade Line Specification

* Exception: Note if the message sequence number is reset to 1 and data are sent with the possible dup flag "1", SIP will not reject the data.

3.1.9. Invalid Message Protocol effective March 17, 2008

When a message is received from a UTP participant the system checks the first 2 bytes of the block which indicates the block length. If the block is incorrect the application does not process the message and no notification is sent to the participant. Messages continue to be sent from the participant but are not processed; because of the invalid block length there is insufficient information to determine the next sequence number.

The following changes are being proposed to provide information to the participant when they submit an invalid block length:

- If the block length is less than the minimum value (46 bytes) or greater than the maximum value (1004 bytes) the connection will be dropped.
- If the block length is within the allowable range the SIP will check the sequence number for validity, an error 12 "Sequence Number Is Not Numeric" will be returned to the participant.

The SIP operations staff regularly monitors UTP connections and, if observed, will notify the participants if they experience unusual connection drops.

3.1.10. Emergency Market Condition Control Message Modifications

As a result of the recent market volatility, the UTP operating committee (UTPOC) and the UTP SIP (SIP) have been evaluating the system processing of Circuit Breaker events. The UTPOC and the SIP will modify the Emergency Market Condition processing to more closely match the current Regulatory Halt Processing. Currently the circuit breaker events only provide for a halt message and a trade resume message.

Currently, the circuit breaker events disseminated via the [UTP Data Feeds](#) only provide for a Halt message and a Trade Resume message. If the Circuit Breaker event requires trading to resume the same day, a new message will be provided (Quote Resume control), allowing for UTP participants to adjust their positions before the Circuit Breaker event is released for trading.

In June 2008, the SIP will introduce a new Control message (Category C – Type R) indicating the Emergency Market Condition - Quote Resume:

Emergency Market Condition - Quote Resume (Category C - Type R)

This message indicates that the emergency market condition has entered a quote only period.

To ensure an orderly market, a quote-only window is provided for quoting participants to adjust their positions before trading resumes. During this positioning period, UTP participants may enter quotations into the marketplace for all issues. As UTP participants enter data, the SIP will calculate a National BBO. During the positioning window, the National BBO should be considered to be indicative. The Message Sequence Number field for the Emergency Market Quote Resume control message will contain a number one greater than the highest Message Sequence Number previously transmitted in the last message. Upon receipt of the Emergency Market Condition Quote Resume, market data vendors are asked to continue to show an emergency market condition indicator on quotation displays.

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3.1.11. Reg SHO Short Sale Restricted Indicator

In May 2010, the SEC adopted amendments to Regulation SHO under the Securities Exchange Act of 1934. As outlined in [Release Number 34-61595](#), the SEC is establishing a short sale-related circuit breaker that, if triggered, will impose a restriction on the prices at which securities may be sold short (“short sale price test” or “short sale price test restriction”).

Under the amended rule, the SEC requires that UTP participants establish, maintain, and enforce written policies and procedures reasonably designed to prevent the execution or display of a short sale order of a covered security at a price that is less than or equal to the current national best bid if the price of that covered security decreases by 10% or more from the covered security’s closing price as determined by the listing market for the covered security as of the end of regular trading hours on the prior day.

Once the price test restriction has been triggered, Rule 201 (also known as the alternative uptick rule) would apply to short sale orders in that security for the remainder of the day as well as the following day.

NASDAQ OMX will introduce a new Reg SHO Short Sale Price Test Restricted Indicator administrative message format on the UTP data feeds to indicate that an issue has breached the SEC Rule 201 short sale price test threshold. On the UTP data feeds, the Reg SHO Short Sale Price Test Restricted Indicator message will be identified as Message Category A, Message Type V.

In addition to the real-time messages, NASDAQ OMX will add a spin of Reg SHO Short Sale Price Test Restricted Indicator messages to its pre-opening processes on the UTP data feeds.

Please Note: The Reg SHO Short Sale Restricted Indicator is provided in the inbound trade specifications for informational purposes only. The UTP SIP will only accept inbound receipt of this from the listing market via quote ports

For the next UTP release to be scheduled for the 4th Quarter of 2012, the UTP SIP will introduce new inbound quotation and administrative messaging to accommodate the following three rule changes:

- **Limit Up-Limit Down** – This rule sets forth a new process for handling market volatility issues at the single security level for all U.S. equity exchanges.
- **Market Wide Circuit Breakers** – This modified rule establishes a new benchmark and threshold triggers to be used to halt trading on all U.S. equity, options and futures exchanges in the event of a severe market downturn.

3.1.12. SEC Limit Up / Limit Down Functionality

Note: Limit Up / Limit Down (LULD) initiative will be disseminated via the UTP outbound data feeds and UTP SIP in **NOT** going to return any data via the participants inbound connections. Participants will be required to process the UTP data feeds to receive this information.

Note: This enhancement was implemented as part of the Limit Up / Limit Down and Market Wide Circuit Breaker changes in February 4, 2013.

The Securities and Exchange Commission (SEC) has approved a pilot plan (<http://www.sec.gov/rules/sro/nms/2012/34-67091.pdf>), to address extraordinary market volatility in NMS Stocks by establishing a new Limit Up–Limit Down (LULD) mechanism. The new LULD procedures are designed to prevent trades in individual NMS Stocks from occurring outside of specified Upper and Lower Limit Price Bands.

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Overview of LULD Functionality

- Trade prices will be the basis for the calculation and publication of Price Bands for NMS Stocks.
- Bid prices above the Upper Limit Price Bands and Offer prices below the Lower Limit Price Bands will be identified as Non-Executable and will not be included in the National Best Bid and/or National Best Offer calculations.
- National Best Bids that are below the Lower Limit Price Bands and National Best Offers that are above the Upper Limit Price Bands for NMS Stocks will be identified as Non-Executable.
- National Best Bids that are equal to the Upper Limit Price Bands and National Best Offers that are equal to the Lower Limit Price Bands for NMS Stocks will be identified as in Limit State.

Limit Up – Limit Down Price Band Messages

In support of the new LULD pilot program, the UTP SIP, shall calculate and disseminate to the public a Lower Price Band and an Upper Price Band for NASDAQ-listed securities during Regular Trading Hours.

The SIP shall calculate a Pro-Forma Reference Price on a continuous basis during Regular Trading Hours. If a Pro-Forma Reference Price has not moved by 1% or more from the Reference Price currently in effect, no new Price Bands shall be disseminated, and the current Reference Price shall remain the effective Reference Price.

When the Pro-Forma Reference Price has moved by 1% or more from the Reference Price currently in effect, the Pro-Forma Reference Price shall become the Reference Price, and the Processor shall disseminate new Price Bands based on the new Reference Price; provided however, that each new Reference Price shall remain in effect for at least 30 seconds.

For messaging details, please refer to section 4.2.7 of the UQDF specification document.

LULD Quotation Update Messages

In support of the LULD rules, the UTP SIP will be replacing the UTP Participant Best Bid and Offer (BBO) quotation messages with new messages that include new LULD Indicator fields at both the market participant's BBO and the national BBO (NBBO) level as well as a new SIP Generated Update field.

As defined in the LULD rules, the UTP SIP is required to send a quote update if one side of the market for an individual security is outside the applicable price band. The LULD Indicator would denote that the national best bid or best offer price is non-executable. When both sides of the market reach the applicable price bands, the UTP SIP is required to denote that the individual security has entered a Limit State. Trading for the security would exit a Limit State if, within 15 seconds of entering the Limit State, all Limit State Quotations were executed or canceled in their entirety. If the market did not exit a Limit State within 15 seconds, the primary listing exchange would declare a five-minute trading pause, which would be applicable to all markets trading the security.

For the new messaging, please see sections 4.1.1 and 4.1.2 of the UQDF specification document.

LULD Changes to the Trading Action Messages

As noted above, NASDAQ, as a primary listing market, has the authority to declare a five-minute trading pause for an individual security that does not exit a Limit State within 15 seconds. To support this scenario, the UTP SIP is modifying the Trading Halt-Cross SRO message format to support a new "P" (Pause) action value as well as a new "LULD" reason code.

Limit Up – Limit Down Price Band Messages

In support of the new SEC regulations, the UTP SIP for each NMS stock, shall calculate and disseminate to the public a Lower Price Band and an Upper Price Band during Regular Trading Hours.

The SIP shall calculate a Pro-Forma Reference Price on a continuous basis during Regular Trading Hours. If a Pro-Forma Reference Price has not moved by 1% or more from the Reference Price currently in effect, no new Price Bands shall be disseminated, and the current Reference Price shall remain the effective Reference Price.

When the Pro-Forma Reference Price has moved by 1% or more from the Reference Price currently in effect, the Pro-Forma Reference Price shall become the Reference Price, and the Processor shall disseminate new Price Bands based on the new Reference Price; provided however, that each new Reference Price shall remain in effect for at least 30 seconds.

Revised: November 2015

UTP Participant Trade Line Specification

3.1.13. Market Wide Circuit Breakers

Please Note: Market Wide Circuit Breaker message is provided in the inbound Trade specifications for informational purposes only. The UTP SIP will only accept inbound receipt of this message from the listing market via quote ports.

The SEC has approved a joint SRO proposal to revise the existing market-wide circuit breakers, which halt trading in all NMS securities (as defined in Rule 600(b)(47) of Regulation NMS under the Act) in the event of extraordinary market volatility, in order to make them more meaningful in today's high-speed electronic markets.

As described in the SEC rule approval order, the market wide circuit breakers changes will: (i) replace the Dow Jones Industrial Average (DJIA) with the Standard & Poor's (S&P) 500 Index ("S&P 500") as the reference index; (ii) Recalculate the values of the threshold triggers daily rather than quarterly; (iii) reduce the 10%, 20%, and 30% market decline trigger percentages to 7%, 13%, and 20%; (iv) simply the length of the trading halts associated with each market decline level; and (v) streamline and extend the times when a market wide circuit breaker could be triggered.

The proposed Level 1, Level 2, and Level 3 circuit breakers would operate as follows:

Level 1 Halt - Before 3:25 p.m. – 15 minutes; at or after 3:25 p.m. – trading shall continue, unless there is a Level 3 halt.

Level 2 Halt - Before 3:25 p.m. – 15 minutes; at or after 3:25 p.m. – trading shall continue, unless there is a Level 3 halt.

Level 3 Halt - At any time – trading shall halt and not resume for the rest of the day.

In support of the new MWCB rules, the UTP SIP will be introducing two new administrative messages on UQDF, UTDF and OMDF.

Market Wide Circuit Breaker (MWCB) Decline Levels message

A Market Wide Circuit Breaker (MWCB) Level message will be disseminated as Category A - Type C to inform market participants of the daily MWCB decline points for the current trading day.

The MWCB Levels will set each morning based on the prior day's closing value of the S&P 500 index. Under normal circumstances, the MWCB levels will be disseminated prior to the regular market hours. In the unlikely event of an index calculation error, however, the UTP SIP reserves the right to update the MWCB levels intraday. UTP participants and UTP data feed recipients are advised to retain only the most recently disseminated levels for that trading day.

For messaging details, please refer to section 4.2.9 of the UQDF specification document.

Market Wide Circuit Breaker Status message

A Market Wide Circuit Breaker (MWCB) Status message will be disseminated as inform participants and the UTP data recipients when a MWCB has breached one of the established levels.

For messaging details, refer to section 4.2.10 of the UTDF specification document.

Following the Market Wide Circuit Breaker Status message, NASDAQ, as the primary market center, is expected to enter Trading Action – Cross SRO messages for all listed securities. To help differentiate MWCB actions from other halt actions, the UTP SIP will add new Reason code values as well.

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3.1.14. Listing Market Opening Reference Midpoint

An Opening Reference Midpoint Message will inform the SIP of the listing markets midpoint reference price required by the SIP as part of the LULD calculation requirements. The inbound message to the SIP will consist of an Originator ID participant of "QU" (NASDAQ) and a Destination value of "SU" for the SIP.

Current UTP SIP Assumptions:

- Listing market would send inbound, via the **trade lines**, to the UTP SIP all crossing trades including crosses that resulted in a zero price zero size cross.
- Listing market would send inbound, via the **trade lines**, to the UTP SIP the new Listing Market Reference Midpoint message for only those securities that had a zero price zero size cross.

3.1.15. Inbound Message Header Changes for Date/Time (Postponed)

Note:

The decision to retire the message header with the implementation of LULD/MWCB changes in February 2013 is being postponed, pending additional direction and requirements from the UTP operation committee. While there remains an open request to provide inbound a new indicator which will help the participants uniquely identify and track inbound messages, it is uncertain what this indicator should be or the requirements of what the SIP should do with this information.

It has been determined that the Message Header change will be postponed until after the LULD / MWCB release scheduled for February 4, 2013 and upon analysis of further requirements from the UTP Operating committee.

3.1.16. UTP Trade Modifier/Financial Status Indicator Enhancement

In cooperation with the UTP Operating Committee (UTPOC) and Consolidated Tape Authority (CTA), the UTP Securities Information Processor (UTP SIP) plans to introduce two new sale condition values on its outbound trade messages via the UTP Trade Data FeedSM (UTDFSM) on or about October 7, 2013.

UTP market participants will support these two new sale condition values on their inbound messages to the UTP SIP and to the Securities Information Automation Corporation (SIAC).

New Sale Condition Modifiers:

The new sale condition modifiers are:

Sale Condition Value	Sale Condition Byte Placement	Purpose
1	Level 4	Odd Lot Trade
9	Level 2	Corrected Consolidated Close (per listing market)

Odd Lot Trade ("1"): The Odd Lot Trade modifier will be available to any participant to distinguish a trade resulting from a market center's execution in increments less than the defined round lot size. Odd Lot Trade transactions will be included in **volume statistical calculations only**. The Odd Trade value "1" will appear in Level 4 of the extended sale condition modifier field on the UTDF and CTS data feeds.

Please note: Each morning within the Issue Symbol Directory Message (Category A – Type B) the round lot size is established for NASDAQ Listed Securities.

Corrected Consolidated Close - per the Listing Market ("9"): This new modifier will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds.

UTP Participant Trade Line Specification

New Financial Status Indicators:

The UTP SIP plans to introduce a new Financial Status indicator on all UTP data feeds on or about August 5, 2013. The Financial Status indicator is used to denote the current Financial Status of a security. UTP will be modified to add a new Financial Status indicator in the existing Financial Status field. The new Financial Status indicator 'C' will be used to denote 'Creations and/or Redemptions Suspended for Exchange Traded Product' to indicate that the Exchange Traded Product does not offer the ability to create and/or redeem shares on the listing market.

The new Financial Status indicator will be as follows:

Code	Value
C	Creations and/or Redemptions Suspended for Exchange Traded Product

3.1.17. Timestamp and Transaction ID Background

In January 2015, the committee has requested that the SIP add an additional timestamp that would be provided by participants. This will create two new timestamps being provided by participants for inclusion on the outbound data services. The new timestamps definitions are being determined and will be provided as soon as they become available.

With the recent addition of the second timestamp requirement the Message Header release will be revised and the following proposed changes are now schedule to be implemented in July2015.

As requested by the Policy/Technical Committees, the SIPs will make modifications to the Message Header Protocol to support Participant Timestamp information in the inbound protocol specifications and the outbound data feed specifications (UQDF, UTDF & OMDF).

Additionally, as agreed to by the Participants and the SIPs, a new Transaction ID field will be supported in the Outbound Services. The Output Transaction ID information is intended for use by Participants/SIPs only and will be identified as 'Reserved for Internal Use' on the Output Specifications.

INBOUND UTP TIMESTAMP CHANGE			
EXISTING PARTICIPANT MESSAGE HEADER FORMAT		PROPOSED PARTICIPANT MESSAGE HEADER FORMAT (includes Participant Timestamp 2)	
Field Name	Length	Field Name	Length
Message Category	1	Message Category	1
Message Type	1	Message Type	1
Originating Participant ID	2	Originating Participant ID	2
Message Destination	2	Message Destination	2
Message Sequence Number	8	Message Sequence Number	8
<i>Not Applicable</i>	<i>N/A</i>	reserved	1
<i>Date Time</i>	<i>7</i>	Timestamp 1	6
Regional Reference Number	7	Regional Reference Number	7
Possible Dupe Flag	1	Possible Dupe Flag	1
<i>Not Applicable</i>	<i>N/A</i>	Timestamp 2	6
Total Length	29	Total Length	35

UTP Participant Trade Line Specification

3.1.18. UTP SIP to Modify Sale Condition Modifiers July 2015

At a recent policy committee meeting, the UTP Operating Committee (UTPOC) voted to redefine two Sale Condition Modifiers on the UTP Trade Data Feed (UTDF). In accordance with the vote, the UTP Securities Information Processor (UTP SIP) will implement the following Sale Condition Modifiers as part of the next UTDF release:

- Redefine the existing Stock Option Trade (V) modifier
- Introduce a new Qualified Contingent Trade (7) modifier

Sale Condition Modifier	Current Definition	New Definition
V	Stock Option Trade	Contingent Trade
7	Reserved / Placeholder for 611 Exempt Trades	Qualified Contingent Trade

These two Sale Condition Modifier changes will be implemented the last week of July 2015, with the previously announced UTP message header changes.

How will the modifiers be changed?

The SIPs will **redefine** the Stock Option Trade Modifier (V) to be a Contingent Trade and associated trade statistic processing rules. The updates are as follows:

- **Modified Definition:** Contingent Trade (V) - The Contingent Trade sale condition code is used to identify transactions where the execution of the transaction is contingent upon some event.
- **Modified Processing Rules:** Modified rules to remove its eligibility to update high/low or last for both consolidated and market center processing. A Contingent Trade would still update volume and would still be eligible for Reg NMS revenue sharing. The “V” code will continue to be disseminated as a Level 4 – Byte SRO Trade Detail.

Additionally, the SIPs will **activate** sale condition modifier “7” as a Qualified Contingent Trade. Please note that the “7” code is currently listed in the UTDF specification as a placeholder for 611 exempt trades. The new definition and processing rules are as follows:

- **Definition:** Qualified Contingent Trade (“QCT”) is a transaction consisting of two or more component orders executed as agent or principal where the execution of one component is contingent upon the execution of all other components at or near the same time and the price is determined by the relationship between the component orders and not the current market price for the security.
- **Processing Rules:** Allow the rules for both consolidated and market center processing to update volume only. QCT transactions would be eligible for Reg NMS revenue sharing. The “7” code will be disseminated as a Level 2 – Byte Reason for TT Exemption.

Please visit the [SEC website](#) for the order granting an exemption for Qualified Contingent Trades from Rule 611(a).

UTP Participant Trade Line Specification

TRADE MESSAGES:

3.2. Regular Last Sale

Each Exchange Participant is required to forward Last Sale reports, where applicable, to the SIP. The inbound message will contain an Originator Id of one of the UTP Participants and a Destination Id of either "SU" (old header format) or "S1" (new header format) for the SIP.

3.2.1. Regular Trade Report Message Format

The format of a Regular Trade Report Message is 37 bytes:

MHCAT = T

MHTYPE = E

SECID	TTEXM	TRCOND	TRNDAY	TRSIDE	TRPRI	TRVOL
11	1	4	2	1	10	8

Last Sale Report Field Definitions: Note – each Participant is required to submit the Reg NMS sale condition (TRCOND) data in proper byte location sequence and proper Trade Trough Exempt flag as follows:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
<space>	@, C, N, R, or Y	O, 5, 6, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Field Name	Characters	Field Description						
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric including special characters, left justified, space filled.						
TTEXM	1	Trade Through Exempt Flag: Alphanumeric one byte and represents that the trade is not subject to trade through rule 611 of SEC Reg. NMS. Allowable values: <table border="1" data-bbox="446 1486 792 1587"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>611 Exempt</td> </tr> <tr> <td><space></td> <td>Not applicable</td> </tr> </tbody> </table>	Code	Value	X	611 Exempt	<space>	Not applicable
Code	Value							
X	611 Exempt							
<space>	Not applicable							

UTP Participant Trade Line Specification

Field Name	Characters	Field Description																																																																								
TRCON	4	<p>Sale Condition:</p> <table border="1"> <thead> <tr> <th>Level 1 – Byte Settlement Type</th> <th>Level 2 – Byte Reason for TT Exemption</th> <th>Level 3 Byte Extended Hours or Sold</th> <th>Level 4 – Byte SRO Trade Detail</th> </tr> </thead> <tbody> <tr> <td>@ = Regular Trade</td> <td>F = Intermarket Sweep</td> <td>T = Form T</td> <td>1 = Stopped Stock</td> </tr> <tr> <td>C = Cash</td> <td>O = Opening Prints</td> <td>L = Sold Last</td> <td>A = Acquisition</td> </tr> <tr> <td>N = Next Day</td> <td>4 = Derivatively Priced</td> <td>Z = Sold (Out of Sequence)</td> <td>B = Bunched</td> </tr> <tr> <td>R = Seller</td> <td>5 = Re-Opening Prints</td> <td>U = Extended trading hours - Sold Out of Sequence</td> <td>D = Distribution</td> </tr> <tr> <td>Y = Yellow Flag</td> <td>6 = Closing Prints</td> <td></td> <td>E = Placeholder Future</td> </tr> <tr> <td></td> <td>7 = Qualified Contingent Trade (“QCT”)</td> <td></td> <td>G = Bunched Sold Trade</td> </tr> <tr> <td></td> <td>8 = Placeholder For 611 Exempt</td> <td></td> <td>H = Price Variation</td> </tr> <tr> <td></td> <td>9 = Corrected Consolidated Close (per listing market)</td> <td></td> <td>I = Odd Lot Trade</td> </tr> <tr> <td></td> <td></td> <td></td> <td>K = Rule 155</td> </tr> <tr> <td></td> <td></td> <td></td> <td>M = Market Center Official Close Price</td> </tr> <tr> <td></td> <td></td> <td></td> <td>P = Prior Reference Price</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Q = Market Center Official Open Price</td> </tr> <tr> <td></td> <td></td> <td></td> <td>S = Split Trade</td> </tr> <tr> <td></td> <td></td> <td></td> <td>V = Contingent Trade</td> </tr> <tr> <td></td> <td></td> <td></td> <td>W = Average Price Trade</td> </tr> <tr> <td></td> <td></td> <td></td> <td>X = Cross Trade</td> </tr> <tr> <td></td> <td><Space></td> <td><Space></td> <td><Space></td> </tr> </tbody> </table>	Level 1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail	@ = Regular Trade	F = Intermarket Sweep	T = Form T	1 = Stopped Stock	C = Cash	O = Opening Prints	L = Sold Last	A = Acquisition	N = Next Day	4 = Derivatively Priced	Z = Sold (Out of Sequence)	B = Bunched	R = Seller	5 = Re-Opening Prints	U = Extended trading hours - Sold Out of Sequence	D = Distribution	Y = Yellow Flag	6 = Closing Prints		E = Placeholder Future		7 = Qualified Contingent Trade (“QCT”)		G = Bunched Sold Trade		8 = Placeholder For 611 Exempt		H = Price Variation		9 = Corrected Consolidated Close (per listing market)		I = Odd Lot Trade				K = Rule 155				M = Market Center Official Close Price				P = Prior Reference Price				Q = Market Center Official Open Price				S = Split Trade				V = Contingent Trade				W = Average Price Trade				X = Cross Trade		<Space>	<Space>	<Space>
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TRNDAY	2	Seller Sales Day: Numeric. Number of days for seller sale (02, 04-60). NUL filled if TRCOND is not equal to R.																																																																								
TRSIDE	1	Side of execution: Alphanumeric. Indicates side of the trade. B - Buy S - Sell X – Cross R – Short Sale (Note: this value must be approved by the UTP Committee, and a software release to incorporate it as a valid value accepted by the SIP must be completed.)																																																																								
TRPRI	10	Trade Price: 999999v9999. 6 whole dollar numeric and 4 decimal numeric. Pad with zeros. Decimal is implied.																																																																								
TRVOL	8	Trade volume: Numeric. Actual quantity shares filled in the trade, not number of round lots. Right justified, zero filled.																																																																								

Note 1: The Form T (T) Sale Condition should be applied for the following:

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

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Note 2: The U Extended Hours (Sold out of sequence) Sale Condition should be applied when transactions executed during the following time periods are reported more than 90 seconds after execution.

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 3: The Sale Condition “M”, Market Center Close Price, is used to indicate the “official” closing value as determined by a market center. A message generated with this condition will contain the market center generated closing price. The “M” sale condition modifier shall only affect the market center closing/last sale value and will not affect the consolidated market value.

Note 4: The Sale Condition “Q”, Market Center Open Price, is used to indicate the “official” open value as determined by a Market Center. A message generated with this condition will contain the Market Center generated open price. The “Q” sale condition shall only affect the Market Center open high/low values and will not affect any of the consolidated market values.

Note 5: Certain UTP Participants utilize the .W sale condition (average price trades) to report stopped stock transactions. Because .W sale condition trades reflect other transaction prices, the trades with this sale condition will not affect the consolidated or market center high, low, or last sale prices. Volume statistics, however, will be impacted.

Note 6: Odd lot transactions will be rejected back to the participant via Error Code 29 – “Invalid Volume”, for the following reasons:

Error Code	Reject Reason
29	Invalid Volume
a.	The Volume is not numeric
b.	Report Volume is zero and sale condition does not equal “9”, “M” or “Q”
c.	Report Volume contains volume less than a round lot and sale condition does not equal “I”

Note 7: The Sale Condition “Y”, Yellow Flag, is used to convey periods of time when a Market Center may be experiencing technical difficulties. This sale condition will affect the Market Center and Consolidated last sale, high, low and volume values.

Note 8: The Sale condition “9”, Corrected Consolidated Close (per listing market), will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds. Corrected Consolidated Close transactions will be rejected back to participants for the following reasons:

Sale Condition “9” Processing scenario	Validation Processing	Reject Reason
Sale Condition “9” Trades received before allowable reporting time of 30 seconds after market close	Invalid Reporting Time	New Code #82
Sale Condition “9” Trades received from non-listing market	Invalid UserOrigin (MHORIG)	#2
Sale Condition “9” Trades received from Listing Market with Volume Other than Zero (0)	Invalid Volume	29

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3.2.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open a. A trade report was transmitted to the SIP before the Trade Report SOD message was disseminated by the SIP, or b. After the Exchange Participant EOPR Trade Message was transmitted to the SIP or; c. After the EOPR Trade message was disseminated to the Exchange Participant
26	Invalid SECID a. The SECID is not in the database or; b. The SECID is in a delete state within the database
28	Invalid Price a. The Price is not numeric b. The price is zero
29	Invalid Volume a. The Volume is not numeric b. Report Volume is zero and sale condition does not equal "M" or "Q" c. Report contains volume of less than a round lot and sale condition does not equal "I" d. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
31	Invalid condition a. The condition is other than a valid trade condition. b. The trade through exempt value and condition values are not a valid combination. c. The condition values are not in proper bucket placement.
32	Invalid Number of Days field The condition field is equal to R and the Seller days is other than 02 or 04 - 60
33	Invalid Execution Side The execution side is other than B (Buy), S (Sell), X (Cross)
37	Invalid Format The format of the message is not in accordance with the Participant Input Specification
82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.

UTP Participant Trade Line Specification

3.3. Cancel/Error Messages:

Each Exchange Participant is required to forward Cancel/Error Reports, where applicable, to the SIP when a trade report that has originally been delivered needs to be cancelled from the system. The inbound message will contain an Originator Id of one of the UTP Participants and a Destination Id of either "SU" (old header format) or "S1" (new header format) for the SIP.

3.3.1. Cancel/Error Message Format

This future format of a Cancel/Error Message is 46 bytes:

MHCAT = T
MHTYPE = I

SECID	TRTYP	OMHMSN	TTEXM	TRCOND	TRNDAY	TRSIDE	TRPRI	TRVOL
11	1	8	1	4	2	1	10	8

Cancel/Error Report Field Definitions: Note – each Participant is required to submit the Reg NMS sale condition (TRCOND) data in proper byte location sequence and proper Trade Trough Exempt flag as follows:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X <space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
<space>	@, C, N, R, or Y	O, 5, 6, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Field Name	Characters	Field Description						
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric including special characters, left justified, space filled.						
TRTYP	1	Trade Type: Alphanumeric. The type of transaction associated with the message. Associated Values are: C – Cancel E – Error						
OMHMSN	8	Original Message Sequence Number: Numeric. This field states the sequence number of the original trade that is being acted upon.						
TTEXM	1	Trade Through Exempt Flag: Alphanumeric one byte and represents that the trade is not subject to trade through rule 611 of SEC Reg. NMS. Allowable values: <table border="1" data-bbox="548 1646 893 1740"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>611 Exempt</td> </tr> <tr> <td><space></td> <td>Not applicable</td> </tr> </tbody> </table>	Code	Value	X	611 Exempt	<space>	Not applicable
Code	Value							
X	611 Exempt							
<space>	Not applicable							

UTP Participant Trade Line Specification

TRCON	4	Sale Condition:			
		Level 1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
		@ = Regular Trade	F = Intermarket Sweep	T = Form T	1 = Stopped Stock
		C = Cash	O = Opening Prints	L = Sold Last	A = Acquisition
		N = Next Day	4 = Derivatively Priced	Z = Sold (Out of Sequence)	B = Bunched
		R = Seller	5 = Re-Opening Prints	U = Extended trading hours - Sold Out of Sequence	D = Distribution
		Y = Yellow Flag	6 = Closing Prints		E = Placeholder Future
			7 = Qualified Contingent Trade (“QCT”)		G = Bunched Sold Trade
			8 = Placeholder For 611 Exempt		H = Price Variation
			9 = Corrected Consolidated Close (per listing market)		I = Odd Lot
					K = Rule 155
					M = Market Center Official Close Price
					P = Prior Reference Price
					Q = Market Center Official Open Price
			S = Split Trade		
			V = Contingent Trade		
			W = Average Price Trade		
			X = Cross Trade		
		<Space>	<Space>		
TRNDAY	2	Seller Sales Day: Numeric. Number of days for seller sale in original transaction (02, 04-60). NUL filled if TRCOND is not equal to R.			
TRSIDE	1	Side of execution: Alphanumeric. Indicates side of the trade in the original transaction. B - Buy S - Sell X – Cross R – Short Sale (Note: this value must be approved by the UTP Committee, and a software release to incorporate it as a valid value accepted by the SIP must be completed.)			
TRPRI	10	Trade Price: 999999v9999. 6 whole dollar numeric and 4 decimal numeric. Pad with zeros. Decimal is implied.			
TRVOL	8	Trade volume: Numeric. Actual quantity shares filled in the trade, not number of round lots for original trade. Right justified, zero filled.			

Note 1: The Form T (T) Sale Condition should be applied for the following:

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 2: The U Extended Hours (Sold out of sequence) Sale Condition should be applied when transactions executed during the following time periods are reported more than 90 seconds after execution.

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.

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- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 3: The Sale Condition “M”, Market Center Close Price, is used to indicate the “official” closing value as determined by a market center. A message generated with this sale condition will contain the market center generated closing price. The “M” sale condition shall only affect the market center closing/last sale value and will not affect the consolidated market value.

UTP Participants must use the Cancel/Error message if they plan to cancel a message that was previously sent to the SIP that included the market center close price.

Note 4: The Sale Condition “Q”, Market Center Open Price, is used to indicate the “official” open value as determined by a Market Center. A message generated with this condition will contain the Market Center generated open price. The “Q” sale condition shall only affect the Market Center open high/low values and will not affect any of the consolidated market values.

Note 5: Certain UTP Participants utilize the .W sale condition (average price trades) to report stopped stock transactions. Because .W sale condition trades reflect other transaction prices, the trades with this sale condition will not affect the consolidated or market center high, low, or last sale prices. Volume statistics, however, will be impacted.

Note 6: Odd lot transactions will be rejected back to the participant via Error Code 29 – “Invalid Volume”, for the following reasons:

Error Code	Reject Reason
29	Invalid Volume
a.	The Volume is not numeric
b.	Report Volume is zero and sale condition does not equal “9”, “M” or “Q”
c.	Report Volume contains volume less than a round lot and sale condition does not equal “I”

Note 7: The Sale Condition “Y”, Yellow Flag, is used to convey periods of time when a Market Center may be experiencing technical difficulties. This sale condition will affect the Market Center and Consolidated last sale, high, low and volume values.

Note 8: The Sale condition “9”, Corrected Consolidated Close (per listing market), will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds. Corrected Consolidated Close transactions will be rejected back to participants for the following reasons:

Sale Condition “9” Processing scenario	Validation Processing	Reject Reason
Sale Condition “9” Trades received before allowable reporting time of 30 seconds after market close	Invalid Reporting Time	New Code #82
Sale Condition “9” Trades received from non-listing market	Invalid UserOrigin (MHORIG)	#2
Sale Condition “9” Trades received from Listing Market with Volume Other than Zero (0)	Invalid Volume	29

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3.3.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open a. A trade report was transmitted to the SIP before the Trade Report SOD message was disseminated by SIP, or b. After the Exchange Participant EOPR Trade message was transmitted to the SIP or; c. After the EOPR Trade message was disseminated to the Exchange Participant
12	Sequence Number Not Numeric
26	Invalid SECID a. The SECID is not in the database or; b. The SECID is in a delete state within the database
27	Invalid Error, Cancel The Report type is other than C or E
28	Invalid Price a. The Price is not numeric b. The price is zero
29	Invalid Volume a. The Volume is not numeric b. Report Volume is zero and sale condition does not equal "M" or "Q" c. Report contains volume of less than a round lot and sale condition does not equal "I" d. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
31	Invalid condition a. The condition is other than a valid trade condition. b. The trade through exempt value and condition values are not a valid combination. c. The condition values are not in proper bucket placement.
32	Invalid Number of Days field The condition field is equal to R and the Seller days is other than 02 or 04 - 60
33	Invalid Execution Side The execution side is other than B (Buy), S (Sell), X (Cross)
37	Invalid Format The format of the message is not in accordance with the Participant Input Specification
73	Message contents of trade cancellation message do not match the original trade message.
82	Invalid Reporting Time a. Trade Report with sale condition "9" received prior to allowable reporting time.

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3.4. Correction Trade Report Messages:

Each Exchange Participant is required to forward Correction Trade Reports, where applicable, to the SIP in order to maintain correct consolidated Last Sale data. The inbound message will contain an Originator Id of one of the UTP Participants and a Destination Id of either "SU" (old header format) or "S1" (new header format) for the SIP.

3.4.1. Correction Trade Report Format

The future format of the Original Trade Report for a Correction Message is 45 bytes:

MHCAT = T

MHTYPE = J

SECID	OMHMSN	TXEXM	TXCOND	TXNDAY	TXSIDE	TXPRI	TXVOL
11	8	1	4	2	1	10	8

The format of the Corrected Trade Report for a Correction Message Correction Message is 25 bytes:

TXXEXM	TXXCOND	TXXNDAY	TXXPRI	TXXVOL
1	4	2	10	8

Original Trade Price Format Field Definitions: Note – each Participant is required to submit the Reg NMS sale condition (TRCOND) data in proper byte location sequence and proper Trade Trough Exempt flag as follows:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
<space>	@, C, N, R, or Y	O, 5, 6, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Field Name	Characters	Field Description						
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric including special characters, left justified, space filled.						
OMHMSN	8	Original Message Sequence Number: Numeric. This field states the sequence number of the original trade that is being acted upon.						
TXEXM	1	Trade Through Exempt Flag: Alphanumeric one byte and represents that the trade is not subject to trade through rule 611 of SEC Reg. NMS. Allowable values: <table border="1" data-bbox="574 1644 917 1736"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>611 Exempt</td> </tr> <tr> <td><space></td> <td>Not applicable</td> </tr> </tbody> </table>	Code	Value	X	611 Exempt	<space>	Not applicable
Code	Value							
X	611 Exempt							
<space>	Not applicable							

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Field Name	Characters	Field Description			
TXCOND	4	Sale Condition:			
		Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
		@ = Regular Trade	F = Intermarket Sweep	T = Form T	1 = Stopped Stock
		C = Cash	O = Opening Prints	L = Sold Last	A = Acquisition
		N = Next Day	4 = Derivatively Priced	Z = Sold (Out of Sequence)	B = Bunched
		R = Seller	5 = Re-Opening Prints	U = Extended trading hours - Sold Out of Sequence	D = Distribution
		Y = Yellow Flag	6 = Closing Prints		E = Placeholder Future
			7 = Qualified Contingent Trade ("QCT")		G = Bunched Sold Trade
			8 = Placeholder For 611 Exempt		H = Price Variation
			9 = Corrected Consolidated Close (per listing market)		I = Odd Lot Trade
					K = Rule 155
					M = Market Center Official Close Price
					P = Prior Reference Price
					Q = Market Center Official Open Price
			S = Split Trade		
			V = Contingent Trade		
			W = Average Price Trade		
			X = Cross Trade		
		<Space>	<Space>		
TXNDAY	2	Seller Sales Day: Numeric. Number of days for seller sale in original transaction (02, 04-60). NUL filled if TRCOND is not equal to R.			
TXSIDE	1	Side of execution: Alphanumeric. Indicates side of the trade in the original transaction. B - Buy S - Sell X – Cross R – Short Sale (Note: this value must be approved by the UTP Committee, and a software release to incorporate it as a valid value accepted by the SIP must be completed.)			
TXPRI	10	Trade Price: 999999v9999. 6 whole dollar numeric and 4 decimal numeric. Pad with zeros. Decimal is implied.			
TXVOL	8	Trade volume: Numeric. Actual quantity shares filled in the trade, not number of round lots for original trade. Right justified, zero filled.			

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Corrected Trade Price Format Field Definitions: Note – each Participant is required to submit the Reg NMS sale condition (TRCOND) data in proper byte location sequence and proper Trade Trough Exempt flag as follows:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
<space>	@, C, N, R, or Y	O, 5, 6, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Field Name	Characters	Field Description																																																																				
TXXEXM	1	<p>Trade Through Exempt Flag: Alphanumeric one byte and represents that the trade is not subject to trade through rule 611 of SEC Reg. NMS. Allowable values:</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>611 Exempt</td> </tr> <tr> <td><space></td> <td>Not applicable</td> </tr> </tbody> </table>	Code	Value	X	611 Exempt	<space>	Not applicable																																																														
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UTP Participant Trade Line Specification

Field Name	Characters	Field Description		
		<Space>	<Space>	<Space>
TXXDAY	2	Seller Sales Day: Numeric. Number of days for seller sale in corrected transaction (02, 04-60). NUL filled if TRCOND is not equal to R.		
TXXPRI	10	Trade Price: 999999v9999. 6 whole dollar numeric and 4 decimal numeric. Pad with zeros. Decimal is implied.		
TXXVOL	8	Trade volume: Numeric. Actual quantity shares filled in the trade, not number of round lots for corrected trade. Right justified, zero filled.		

Note 1: The Form T (T) Sale Condition should be applied for the following:

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 2: The U Extended Hours (Sold out of sequence) Sale Condition should be applied when transactions executed during the following time periods are reported more than 90 seconds after execution.

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 3: The Sale Condition “M”, Market Center Close Price, is used to indicate the “official” closing value as determined by a market center. A message generated with this sale condition will contain the market center generated closing price. The “M” sale condition shall only affect the market center closing/last sale value and will not affect the consolidated market value.

UTP Participants should use the Correction Trade Report message if they plan to modify a message that was previously sent to the SIP that included the market center close price. If modifying an existing market center close message, the market center close sale condition “M” should be applied in both the original and modified message. If a Correction Trade Report message includes the .M sale condition in the original trade, but not in the corrected trade, “Reject 31, Invalid Condition” will apply. Likewise, if no .M sale condition is applied in the original trade, but is in the corrected trade, the “Reject 31, Invalid Condition” will apply.

Note 4: The Sale Condition “Q”, Market Center Open Price, is used to indicate the “official” open value as determined by a Market Center. A message generated with this condition will contain the Market Center generated open price. The “Q” sale condition shall only affect the Market Center open high/low values and will not affect any of the consolidated market values.

UTP Participants should use the Correction Trade Report message if they plan to modify a message that was previously sent to the SIP that included the market center open price. If modifying an existing market center open message, the market center open sale condition “Q” should be applied in both the original and modified message. If a Correction Trade Report message includes the .Q sale condition in the original trade, but not in the corrected trade, “Reject 31, Invalid Condition” will apply. Likewise, if no .Q sale condition is applied in the original trade, but is in the corrected trade, the “Reject 31, Invalid Condition” will apply.

Note 5: Certain UTP Participants utilize the .W sale condition (average price trades) to report stopped stock transactions. Because .W sale condition trades reflect other transaction prices, the trades with this sale condition will not affect the consolidated or market center high, low, or last sale prices. Volume statistics, however, will be impacted.

UTP Participant Trade Line Specification

Note 6: Odd lot transactions will be rejected back to the participant via Error Code 29 – “Invalid Volume”, for the following reasons:

Error Code	Reject Reason
29	Invalid Volume
a.	The Volume is not numeric
b.	Report Volume is zero and sale condition does not equal “9”, “M” or “Q”
c.	Report Volume contains volume less than a round lot and sale condition does not equal “I”

Note 7: The Sale Condition “Y”, Yellow Flag, is used to convey periods of time when a Market Center may be experiencing technical difficulties. This sale condition will affect the Market Center and Consolidated last sale, high, low and volume values.

Note 8: The Sale condition “9”, Corrected Consolidated Close (per listing market), will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds. Corrected Consolidated Close transactions will be rejected back to participants for the following reasons:

Sale Condition “9” Processing scenario	Validation Processing	Reject Reason
Sale Condition “9” Trades received before allowable reporting time of 30 seconds after market close	Invalid Reporting Time	New Code #82
Sale Condition “9” Trades received from non-listing market	Invalid UserOrigin (MHORIG)	#2
Sale Condition “9” Trades received from Listing Market with Volume Other than Zero (0)	Invalid Volume	29

3.4.2. Validation Processing

Error Code	Reject Description
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open <ul style="list-style-type: none"> a. A trade report was transmitted to the SIP before the Trade Report SOD message was disseminated by SIP, or b. After the Exchange Participant EOPR Trade Message was transmitted to the SIP or; c. After the EOPR Trade message was disseminated to the Exchange Participant
12	Sequence Number Not Numeric
26	Invalid SECID <ul style="list-style-type: none"> a. The SECID is not in the database or; b. The SECID is in a delete state within the database
28	Invalid Price <ul style="list-style-type: none"> a. The Price is not numeric b. The price is zero

UTP Participant Trade Line Specification

- 29 Invalid Volume
- a. The Volume is not numeric
 - b. Report Volume is zero and sale condition does not equal "M" or "Q"
 - c. Report contains volume of less than a round lot and sale condition does not equal "I"
 - d. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
- 31 Invalid condition
- a. The condition is other than a valid trade condition.
 - b. The trade through exempt value and condition values are not a valid combination.
 - c. The condition values are not in proper bucket placement.
- 32 Invalid Number of Days field
- The condition field is equal to R and the Seller days is other than 02 or 04 - 60
- 33 Invalid Execution Side
- The execution side is other than B (Buy), S (Sell), X (Cross)
- 37 Invalid Format
- The format of the message is not in accordance with the Participant Input Specification
- 74 Message contents of trade correction message do not match the original trade
- 82 Invalid Reporting Time
- a. Trade Report with sale condition "9" received prior to allowable reporting time.

UTP Participant Trade Line Specification

3.5. As/Of Trade Report:

Participants may submit As/Of type transactions to the SIP. The inbound message will contain an Originator Id of one of the UTP Participants and a Destination Id of either "SU" (old header format) or "S1" (new header format) for the SIP.

3.5.1. As/Of Message Format

This current format of an As/Of Message is 53 bytes:

MHCAT = T

MHTYPE = H

SECID	UTPMSN	TTEXM	TRCOND	TRNDAY	TRSIDE	TRPRI	TRVOL	DATETM	REVIND
11	8	1	4	2	1	10	8	7	1

As/Of Report Field Definitions: Note – each Participant is required to submit the Reg NMS sale condition (TRCOND) data in proper byte location sequence and proper Trade Trough Exempt flag as follows:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
<space>	@, C, N, R, or Y	O, 5, 6, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Field Name	Characters	Field Description						
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric including special characters, left justified, space filled.						
UTPMSN	8	Outbound UTP Data Feed (UTDF) Original Message Sequence Number: 8 numeric, this field states the original UTDF disseminated sequence number associated with the As/Of report for the date identified. If no original sequence number exists then this will be zero filled.						
TTEXM	1	Trade Through Exempt Flag: Alphanumeric one byte and represents that the trade is not subject to trade through rule 611 of SEC Reg. NMS. Allowable values: <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Code</th> <th>Value</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>611 Exempt</td> </tr> <tr> <td><space></td> <td>Not applicable</td> </tr> </tbody> </table>	Code	Value	X	611 Exempt	<space>	Not applicable
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UTP Participant Trade Line Specification

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TRSIDE	1	<p>Side of execution: Alphanumeric. Indicates side of the trade. B - Buy S - Sell X – Cross R – Short Sale (Note: this value must be approved by the UTP Committee, and a software release to incorporate it as a valid value accepted by the SIP must be completed.)</p>																																																																								
TRPRI	10	<p>Trade Price: 999999v9999. 6 whole dollar numeric and 4 decimal numeric. Pad with zeros. Decimal is implied.</p>																																																																								
TRVOL	8	<p>Trade volume: Numeric. Actual quantity shares filled in the trade, not number of round lots. Right justified, zero filled.</p>																																																																								
DATETM	7	<p>Date/Time: The prior day date and time the trade was originally disseminated via UTDF for reversals or should have been reported for additions. Refer to Appendix C for definitions</p>																																																																								
REVIND	1	<p>Reversal Indicator: Y – Indicates the transaction represents a reversal. N – Indicates the transaction does not represent a reversal.</p>																																																																								

UTP Participant Trade Line Specification

Note 1: The Form T (T) Sale Condition should be applied for the following:

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 2: The U Extended Hours (Sold out of sequence) Sale Condition should be applied when transactions executed during the following time periods are reported more than 90 seconds after execution.

- Trades executed on trade day between 12:00 a.m. and 9:30 a.m.
- Trades executed on trade day between 4:00:01 p.m. and 8:00 p.m.

Note 3: The Sale Condition “M”, Market Center Close Price, is used to indicate the “official” closing value as determined by a market center. A message generated with this sale condition will contain the market center generated closing price. The “M” sale condition shall only affect the market center high, low, closing/last sale value and will not affect the consolidated market value.

Note 4: The Sale Condition “Q”, Market Center Open Price, is used to indicate the “official” open value as determined by a Market Center. A message generated with this condition will contain the Market Center generated open price. The “Q” sale condition shall only affect the Market Center open high/low values and will not affect any of the consolidated market values.

Note 5: Certain UTP Participants utilize the .W sale condition (average price trades) to report stopped stock transactions. Because .W sale condition trades reflect other transaction prices, the trades with this sale condition will not affect the consolidated or market center high, low, or last sale prices. Volume statistics, however, will be impacted.

Note 6: Odd lot transactions will be rejected back to the participant via Error Code 29 – “Invalid Volume”, for the following reasons:

Error Code	Reject Reason
29	Invalid Volume
a.	The Volume is not numeric
b.	Report Volume is zero and sale condition does not equal “9”, “M” or “Q”
c.	Report Volume contains volume less than a round lot and sale condition does not equal “I”

Note 7: The Sale Condition “Y”, Yellow Flag, is used to convey periods of time when a Market Center may be experiencing technical difficulties. This sale condition will affect the Market Center and Consolidated last sale, high, low and volume values.

Note 8: The Sale condition “9”, Corrected Consolidated Close (per listing market), will be allowed to be used only by the Listing Market and may be used to adjust the consolidated last sale price. The Corrected Consolidated Close will be eligible to set the High, Low and Last for the consolidated statistics and will not update the participant records. Volume will always be reported as zero and will appear in Level 2 of the extended sale condition modifier field on the UTDF and CTS data feeds. Corrected Consolidated Close transactions will be rejected back to participants for the following reasons:

UTP Participant Trade Line Specification

Sale Condition "9" Processing scenario	Validation Processing	Reject Reason
Sale Condition "9" Trades received before allowable reporting time of 30 seconds after market close	Invalid Reporting Time	New Code #82
Sale Condition "9" Trades received from non-listing market	Invalid UserOrigin (MHORIG)	#2
Sale Condition "9" Trades received from Listing Market with Volume Other than Zero (0)	Invalid Volume	29

3.5.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open a. An As/Of trade report was transmitted to the SIP before the Trade Report SOD message was disseminated by the SIP, or b. After the Exchange Participant EOPR Trade Message was transmitted to the SIP or; c. After the EOPR Trade message was disseminated to the Exchange Participant.
26	Invalid SECID a. The SECID is not in the database or; b. The SECID is in a deleted or suspended state within the database
28	Invalid Price a. The Price is not numeric b. The price is zero
29	Invalid Volume a. The Volume is not numeric b. Report Volume is zero and sale condition does not equal "M" or "Q" c. Report contains volume of less than a round lot and sale condition does not equal "I" d. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)
31	Invalid condition a. The condition is other than a valid trade condition. b. The trade through exempt value and condition values are not a valid combination. c. The condition values are not in proper bucket placement.
32	Invalid Number of Days field The condition field is equal to R and the Seller days is other than 02 or 04 - 60
33	Invalid Execution Side The execution side is other than B (Buy), S (Sell), X (Cross)
37	Invalid Format The format of the message is not in accordance with the Participant Input Specification
38	Participant Not Authorized The Participant is not authorized by the SIP for As/Of trade entry capabilities

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- 60 Invalid Date and Time
The time/date in the message is not for a valid calendar date or time.
- 76 Invalid Reversal Indicator
- 78 Invalid Outbound Message Sequence Number
a. Sequence number created for a new As/Of trade report
b. Sequence number entered for a trade reversal does not exist
- 82 Invalid Reporting Time
a. Trade Report with sale condition "9" received prior to allowable reporting time.

UTP Participant Trade Line Specification

4. Administrative Messages:

4.1. General Administrative Message - Category A, Type A

A General Administrative Message delivers information to Participants that normally does not get categorized into one of the other messages outlined in the specification. If the message is being sent from a Participant to the SIP, the inbound message will contain an Originator Id value for one of the UTP Participants and a destination value of either "SU" (old header format) or "S1" (new header format) for the SIP.

If the message is being delivered from the SIP to the Participants, the Originator Id value will be "SU" for the SIP and "LU" for the Participants.

4.1.1. General Administrative Message Format

The standard format of a General Administrative Message is free-form text, with a maximum of 300 bytes:

MHCAT = A

MHTYPE = A

AMDSTN	AMSTAT	AMDATA
2	1	N

General Administrative Message Field Definitions:

Field Name	Characters	Field Description
AMDSTN	2	Message Destination: Alphanumeric, as shown for MHDEST in Message Header.
AMSTAT	1	AMSTAT: NUL Filled.
AMDATA	n	Message Text: Free format with maximum text length of 300 characters.

4.1.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open - the EOD message was disseminated to the Exchange by the SIP

Note: Text exceeding the 300 byte maximum will be truncated by the SIP

UTP Participant Trade Line Specification

4.2. Trading Action

A Trading Action Administrative Message will inform Participants of halts and other market events in the primary Market. The inbound message to the SIP will consist of an Originator Id participant of "QU" (NASDAQ), and a Destination value of either "SU" (old header format) or "S1" (new header format) for the SIP.

Upon receipt of a Trading Action Message that signifies a Trading Halt or trading pause, all UTP Participants should discontinue trading. UTP Participants who continue to submit trade data during the halt should limit their input data to transactions which occurred prior to the trading halt being instituted.

The length of a trading halt or trading pause can vary from issue to issue. If a trading halt spans multiple days, the primary Exchange will send a Trading Action Message at the start of the business day in order to signify the halt is continuing. When an issue is ready to resume trading, the primary market will issue a new Trading Action Message that will indicate when trading will be permitted.

NASDAQ will generate a new Trading Action message whenever one of the attributes in the message changes the Action Date/Time field within the message will reflect the time of the most recent data change.

4.2.1. Trading Action Message Format

The current format of a Trading Action Message is 25 bytes:

MHCAT = A

MHTYPE = O

SECID	ACTN	DATETM	REASCD
11	1	7	6

Trading Action Message Field Definitions:

Field Name	Characters	Field Description
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric, including special characters, left justified, space filled.
ACTN	1	Action: Alphanumeric. Indicates the current trading status for the respective issue. Associated Values are: H – Trading Halt Q – Quote Resumption P – Volatility Trading Pause T – Trading Resumption
DATETM	7	Date/Time: Alphanumeric. This field reflects the date and time the action occurred. Refer to Appendix C for definitions.
REASCD	6	Reason Code: Alphanumeric. Indicates the reason for the trading action. Associated values for halting are: T1 – Halt News Pending T2 – Halt News Dissemination T5 - Single Stock Trading Pause In Affect T6 – Regulatory Halt Extraordinary Market Activity T8 – Halt ETF T 12 – Trading Halted; For Information Requested by NASDAQ H4 – Halt Non Compliance H9 – Halt Filings Not Current H10 – Halt SEC Trading Suspension H11 – Halt Regulatory Concern

UTP Participant Trade Line Specification

		<p>O1 – Operations Halt – Contact Trading Operations IPO1 – IPO Issue – Not Trading Yet M1 – Corporate Action M2 – Quotation Not Available LUDP - Volatility Trading Pause MWC1 - Market Wide Circuit Breaker Halt – Level 1 MWC2 - Market Wide Circuit Breaker Halt – Level 2 MWC3 - Market Wide Circuit Breaker Halt – Level 3 MWC0 – Market Wide Circuit Breaker Halt - Carry over from previous day</p> <p>Associated values for resumptions are: T3 – News and Resumption Times T7 - Single Stock Trading Pause/Quotation-Only Period R4 – Qualifications Issues Reviewed/Resolved; Quotations/Trading to Resume R9 – Filing Requirements Satisfied/Resolved; Quotations/Trading to Resume C3 – Issuer News Not Forthcoming; Quotations/Trading to Resume C4 – Qualifications Halt Ended; Maintenance Requirements Met; Resume C9 – Qualifications Halt Concluded; Filings Met; Quotes/Trades to Resume C11 – Trade Halt Concluded By Other Regulatory Authority; Quotes/Trades Resume R1 – New Issue Available R2 – Issue Available IPOQ – IPO security released for quotation IPOE – IPO security – positioning window extension. MWCQ - Market Wide Circuit Breaker Quote Resumption Space – Reason Not Available</p>
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4.2.2. Validation Processing

A Trading Action Message will be validated as follows:

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open
26	Invalid SECID
37	Invalid Format The format of the message is not in accordance with the Participant Input Specification
77	Invalid Reason Code

UTP Participant Trade Line Specification

4.3. Market Center Trading Action:

A Market Center Trading Action Administrative Message will inform Participants that another Market Center has ceased trading an issue for their Market Center only, resulting from a system issue or from a market center specific regulatory event.

The inbound message to the SIP will consist of an Originator Id of one of the UTP Participants and a Destination Id of either "SU" (old header format) or "S1" (new header format) for the SIP.

If the message is being delivered from the SIP to the Participants, the Originator Id value will be "SU" for the SIP and "LU" for the Participants.

The length of time for a market center trading halt can vary from issue to issue. If a trading halt spans multiple days, the Market Center will send the Market Center Trading Action Message at the start of the business day in order to signify the halt is continuing for that day. When an issue is ready to resume quoting and/or trading, the Market Center will issue a new Market Center Trading Action Message that will indicate when quoting and/or trading will be permitted.

4.3.1. Market Center Trading Action Format

The current format of a Market Center Trading Action Message is 20 bytes:

MHCAT = A

MHTYPE = J

SECID	ACTN	DATETM	Market Center
11	1	7	1

Trading Action Message Field Definitions:

Field Name	Characters	Field Description
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric, including special characters, left justified, space filled.
ACTN	1	Action: Alphanumeric. Indicates the current trading status for the respective issue. Associated Values are: H – Trading Halt Q – Quote Resumption P – Volatility Trading Pause T – Trading Resumption
DATETM	7	Date/Time: Alphanumeric. This field reflects the date and time the action occurred. Refer to Appendix C for definitions.
Market Center	1	Market Center: Alphanumeric. Indicates the Market Center requesting the action.

Note: Inbound submission of the Market Center Trade Action message is only supported via the quote input lines and will be rejected if received from a trade input line.

4.3.2. Validation Processing

A Market Center Trading Action Message will be validated as follows:

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open
26	Invalid SECID

UTP Participant Trade Line Specification

37 Invalid Format
The format of the message is not in accordance with the Participant Input Specification

4.4. Reg SHO Short Sale Price Test Restricted Indicator

A Reg SHO Short Sale Price Test Restricted Indicator message will inform Participants when an issue has breached the Short Sale Price Test threshold. The inbound message to the SIP will consist of an Originator Id from the listing participant ("QU" for NASDAQ OMX) and a Destination value of either "SU" (old header format) or "S1" (new header format) for the SIP.

Upon receipt of a Reg SHO Short Sale Price Test Restricted Indicator Message, all UTP Participants must discontinue delivering of short sale trade data to the SIP for that issue unless it meets the SEC or SRO exemption requirements. It is the responsibility of each UTP participant to validate that the trade report meets the new Short Sale rules prior to submission to the SIP.

The length of a trading restriction will generally remain in effect for the remainder of the current trading day and for the next trading day. However, there can be situations where the trading restriction was enacted due to erroneous activity and the listing market may submit a Reg SHO Short Sale Price Test Restricted Indicator release. If a trade restriction spans multiple days, the listing market will send a new Reg SHO Short Sale Price Test Restricted Indicator Message at the start of the business day in order to signify the trading restriction is still in effect.

4.4.1. Reg SHO Short Sale Price Test Restricted Indicator Message

The format is 12 bytes:

MHCAT = A

MHTYPE = V

SECID	SSRACTN
11	1

Reg SHO Short Sale Price Test Restricted Indicator Message Field Descriptions:

Field Name	Characters	Field Description
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric including special characters, left justified, space filled.
SSRACTN	1	Reg SHO Short Sale Restricted Action: Alphanumeric. Denotes the Reg SHO Short Sale Price Test Restriction status for the issue at the time of the message dissemination. Allowable values are: "0" = No price test in place "1" = Reg SHO Short Sale Price Test Restriction in effect due to an intra-day price drop in security "2" = Reg SHO Short Sale Price Test Restriction remains in effect

4.4.2. Validation Processing

A Short Sale Price Test Restricted Indicator Message will be validated as follows:

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
8	Duplicate Message Sequence Number
11	System Not Open
26	Symbol not valid for a NASDAQ issue
37	Invalid Format The format of the message is not in accordance with the Participant Input Specification

UTP Participant Trade Line Specification

4.5. Listing Market Opening Reference Midpoint

Note: This enhancement was implemented as part of the Limit Up / Limit Down and Market Wide Circuit Breaker changes scheduled for production on February 4, 2013.

An Opening Reference Midpoint Message will inform the SIP of the listing markets midpoint reference price required by the SIP as part of the LULD calculation requirements. The inbound message to the SIP will consist of an Originator ID participant of "QU" (NASDAQ) and a Destination value of either "SU" (old header format) or "S1" (new header format) for the SIP.

4.5.1. Listing Market Opening Reference Price Midpoint Message

The format of an Opening Reference Midpoint Price message is 21 bytes on top of the header message:

MHCAT = A

MHTYPE = M

SECID	MPTPrice
11	10

Field Name	Characters	Field Description
SECID	11	NASDAQ Security Identifier: 1 to 11 alphanumeric including special characters, left justified, space filled.
MPTPrice	10	Opening reference midpoint price: 999999v9999. 6 whole dollar numeric and 4 decimal numeric. Pad with zeros. Decimal is implied.

4.5.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
1	Invalid Message Category (MHCAT) and Type (MHTYPE) a. If other than specified Category and Type codes in Section 2.2.8 b. If other than valid combination of Category and Type codes (Refer to Section 2.2.8)
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
4	Invalid Possible Duplicate Flag (MHSTAT)
7	Missing Message - The current Message Sequence Number is greater than expected. The SIP accepts the message
8	Duplicate Message - The current MSN is less than or equal to the last message processed. The expected MSN is not incremented. The SIP does not accept the message
11	System Not Open a. A trade report was transmitted to the SIP before the Trade Report SOD message was disseminated by the SIP, or b. After the Exchange Participant EOPR Trade Message was transmitted to the SIP or; c. After the EOPR Trade message was disseminated to the Exchange Participant

UTP Participant Trade Line Specification

13	Sequence Number Not Numeric
26	Invalid SECID a. The SECID is not in the database or; b. The SECID is in a delete state within the database
28	Invalid Price a. The Price is not numeric
37	Invalid Format The format of the message is not in accordance with the Participant Input Specification
61	Invalid Date and Time
61	Regional Reference Number not numeric or NUL

UTP Participant Trade Line Specification

4.6. Reject Message

The SIP will return those messages, which have not passed the message text validation, to the Exchange Participants via the Participant Line. Messages may not be returned in the order in which they are received by the Processor. The Originator Id will contain "SU" for the SIP and the Destination Id will identify the Participant experiencing the data problem.

4.6.1. Reject Message Format

MHCAT = A
MHTYPE = R

The current format of a Reject Message:

ARERR	ARMSG
2	N

The Current format of Error Code 7 is as follows:

ARERR	ARMSN1	ARREGREF	ARMSN2
2	8	7	31

Reject message Field Descriptions:

Field Name	Characters	Field Description
ARERR	2	Error Code: Alphanumeric. Contains error code for the first diagnosed error. Refer to Appendix Section 4.1 , Input Error Conditions. Right justified, zero filled.
ARMSG	N	Message Text: All error codes excluding Error Code 7 . All characters from start of the message header to the ending character of the message in error are returned in this field.

Error Code 7 Field Descriptions:

Field Name	Characters	Field Description
ARERR	2	Error Code 7
ARMSN1	8	Last Accepted Message Sequence Number.
ARREGREF	7	Last Accepted Regional Reference Number - may be NUL filled if Participant chooses not to use regional Reference Numbers.
ARMSN2	31	Contains Message Sequence Number and all other header information for the current message.

UTP Participant Trade Line Specification

4.7. Market Open - Category A, Type X

The Market Open Message will be transmitted to indicate when participant quotes should be marked as opened. Prior to the receipt of the Market Open message, all quotations are considered closed. Upon receipt of the Market Open message, quotations that have been transmitted during the current day prior to the receipt of the Market Open will be considered opened. The message will contain an Originator Id value of one of the UTP Participants and the Destination value will be either "SU" (old header format) or "S1" (new header format) for the SIP.

The SIP will continue to accept a value of "SU" until all participants have transitioned; after transition is complete, the SIP will accept a value of "S1".

Note: If a Participant delivers a Market Open Message to the SIP, it is required that the Participant also delivers a Market Closed Message when that Participants market has closed for the day.

4.7.1. Format

The standard format of a Market Open Message consists of the Message Header only:

MHCAT = A
MHTYPE = X

Refer to section 2.2.5 for Field Definitions.

4.7.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
4	Invalid Possible Duplicate Flag (MHSTAT)
8	Duplicate Message Sequence Number
11	System Not Open

UTP Participant Trade Line Specification

4.8. Market Closed - Category A, Type Y

The Market Closed message will be transmitted by the Exchange Participant to indicate that the trading session is ready to close. The message will contain an Originator Id value of one of the UTP Participants and the Destination value will be either "SU" (old header format) or "S1" (new header format) for the SIP.

The SIP will continue to accept a value of "SU" until all participants have transitioned; after transition is complete, the SIP will accept a value of "S1".

Note 1: If a Participant has delivered a Market Open Message to the SIP, it is required that the Participant also deliver the Market Closed Message when the Participants market has closed for the day.

Note 2: If the Participant attempts to deliver a Market Closed message, they must have previously delivered a Market Opened message.

4.8.1. Format

The standard format of a Market Close Message consists of the Message Header only:

MHCAT = A

MHTYPE = X

Refer to section 2.2.5 for Field Definitions.

4.8.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
4	Invalid Possible Duplicate Flag (MHSTAT)
8	Duplicate Message Sequence Number
11	System Not Open
62	Market Open Message not received

UTP Participant Trade Line Specification

5. Control Messages:

Control Messages are utilized to inform the user(s) of various conditions and events during the trading day. Control Messages generated from the SIP will be sent to recipients on all lines (channel) employed by the recipient.

Certain Control Messages are delivered by the Participants to the SIP. Participants that plan to deliver traffic across multiple lines (channels) should be prepared to send Control Messages across all lines (channels) utilized for Trade Messages. For example, if a Participant splits message traffic via an alphabetic split of A-J on one line (channel) and K-Z on a second line (channel) then all Control Messages sent by the Participant to the SIP are expected to be delivered across both lines (channels).

Message Header Format

Refer to section 2.2.5 for Field Definitions.

5.1. Sequence Inquiry - Category C, Type C

The Sequence Inquiry message will be used by Exchange Participants for message sequence number synchronization purposes. The SIP, upon receipt of this message, will transmit back to the inquiring system a Sequence Number Information message (Category C, Type Q) containing the sequence number of the last message received by the SIP. The inbound message will contain an Originator Id of one of the UTP Participants and a Destination Id of either "SU" (old header format) or "S1" (new header format) for the SIP.

5.1.1. Format

The Message Header Category and Type codes are:

MHCAT = C
MHTYPE = C

The format of Sequence Inquiry is a 5 byte, Reserved field:

RESERVED
5

Field Name	Characters	Field Description
RESERVED	5	NUL Filled

UTP Participant Trade Line Specification

5.2. Sequence Information - Category C, Type Q

This message will be sent to an Exchange Participant as a response to a Sequence Inquiry. The outbound message will contain an originator Id of "SU" for the SIP and a Destination of one of the UTP Participants.

5.2.1. Format

The Current format of a Sequence Information Message is 15 bytes:

MHCAT = C

MHTYPE = Q

CNMSN	RESERVED
8	7

Sequence Information Message Field Definitions:

Field Name	Characters	Field Description
CNMSN	8	Last Message Sequence Number received by the SIP
RESERVED	7	Last Regional Reference Number received by the SIP. May be NUL filled if Participant chooses not to use Regional Reference Numbers.

5.3. Start of Day (SOD) - Category C, Type E

The Start of Day (SOD) Message will consist of the Message Header. Only one Control Message may be transmitted in a block to the Exchange Participants and no other message will appear in that block. This message will contain an Originator Id of "SU" for the SIP and a Destination Id of "LU" for all Participants.

Message Header Format

Refer to section 2.2.5 for Field Definitions.

5.3.1. Format

The Start of Day (SOD) Message will consist of the Message Header. Only one Control Message may be transmitted in a block to the Exchange Participants and no other message will appear in that block.

MHCAT = C

MHTYPE = E

The format of a Start of Day Message consists of the Message Header only:

Refer to section 2.2.5 for Field Definitions.

The following fields in the Message Header will include the values stated in the table below:

Field Name	Characters	Field Description
MHMSN	8	Message Sequence Number - NUL filled
MHREGREF	7	Regional Reference Number - Always seven NUL characters
MHSTAT	1	Possible Duplication Flag - Always 0 indicating "No Poss Dup"

UTP Participant Trade Line Specification

5.4. End of Participant Reporting (EOPR) Trades - Category C, Type G

At the completion of its scheduled trading day, each exchange participant will transmit the EOPR Trades message to the SIP. This message indicates that the originating Exchange Participant will not transmit any further trade messages to the SIP. The inbound message will contain an Originator Id from one of the UTP Participants and a Destination Id of "SU" for the SIP.

As part of the shutdown process, the SIP will also distribute an End of Participant Trade Reporting Message on behalf of any Participant who remains open. This message will initially be disseminated at 20:10 p.m. ET and will contain an Originator Id of "SU" for the SIP and a Destination of "LU" for all Participants.

Note: Participants must be able to process an EOPR Message from the SIP even in the event the Participant has previously delivered an EOPR Message to the SIP.

5.4.1. Format

The End of Participant Reporting (EOPR) Trades Message will consist of the Message Header only. Only one Control Message may be transmitted in a block to and from the Exchange Participants and no other message will appear in that block. The Message Header Category and Type codes are:

MHCAT = C
MHTYPE = G

The standard format of an End of Participant Reporting Trade Message consists of the Message Header only:

Refer to section 2.2.5 for Field Definitions.

The following fields in the Message Header will include the values stated in the table below:

Field Name	Characters	Field Description
MHMSN	8	Message Sequence Number - NUL filled
MHREGREF	7	Regional Reference Number - Always seven NUL characters
MHSTAT	1	Possible Duplication Flag - Always 0 indicating "No Poss Dup"

5.4.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
4	Invalid Possible Duplicate Flag (MHSTAT)
8	Duplicate Message Sequence Number
11	System Not Open

UTP Participant Trade Line Specification

5.5. End of Day - Category C, Type F

This message will be transmitted by the SIP to the Exchange Participants to indicate that it has no data or control messages for the receiving Exchange Participants and is shutting down for the day. The End of Day (EOD) Message will consist of the Message Header only. Only one Control Message may be transmitted in a block to and from the Exchange Participants and no other message will appear in that block. This message will contain an Originator Id of "SU" for the SIP and a Destination Id of "LU" for all Participants.

5.5.1. Format

MHCAT = C
MHTYPE = F

The format of an End of Day Message consists of the Message Header only:

Refer to section 2.2.5 for Field Definitions.

The following fields in the Message Header will include the values stated in the table below:

Field Name	Characters	Field Description
MHMSN	8	Message Sequence Number - NUL filled
MHREGREF	7	Regional Reference Number - Always seven NUL characters
MHSTAT	1	Possible Duplication Flag - Always 0 indicating "No Poss Dup"

5.6. Time/Line Integrity - Category C, Type H

This message will be transmitted by the SIP to each Exchange Participant at 1-minute intervals. Its primary function is to provide verification of line integrity during periods of inactivity. However, this message will also be transmitted during periods of activity. This message will consist of the Message Header only. The outbound message will contain an Originator Id of "SU" for the SIP and a Destination Id of "LU".

5.6.1. Format

MHCAT = C
MHTYPE = H

The format of a Time/Line Integrity Message consists of the Message Header only:

Refer to section 2.2.5 for Field Definitions.

The following fields in the Message Header will include the values stated in the table below:

Field Name	Characters	Field Description
MHMSN	8	Message Sequence Number - NUL filled
MHREGREF	7	Regional Reference Number - Always seven NUL characters
MHSTAT	1	Possible Duplication Flag - Always 0 indicating "No Poss Dup"

UTP Participant Trade Line Specification

5.7. Test - Category C, Type J

This message may be transmitted by either the SIP or an Exchange Participant at any time during the day. Its function is to exercise the line to verify transmission integrity. The Message consists of the Header and pre-defined text field. The inbound message will contain an Originator Id of one of the UTP Participants and a Destination Id of either "SU" (old header format) or "S1" (new header format) for the SIP.

5.7.1. Format

MHCAT = C

MHTYPE = J

The format of a Test Message consists of the Message Header only:

Refer to section 2.2.5 for Field Definitions.

The following fields in the Message Header will include the values stated in the table below:

Field Name	Characters	Field Description
MHMSN	8	Message Sequence Number - NUL filled
MHREGREF	7	Regional Reference Number - Always seven NUL characters
MHSTAT	1	Possible Duplication Flag - Always 0 indicating "No Poss Dup"

Text:

C5DATA
96

Text field definition:

Field Name	Characters	Field Description
C5DATA	96	This field will consist of all the USACII characters starting with hexadecimal 20 up to and including hexadecimal 7F, in collating sequence.

5.7.2. Validation Processing

<u>Error Code</u>	<u>Reject Description</u>
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
4	Invalid Possible Duplicate Flag (MHSTAT)
8	Duplicate Message Sequence Number
11	System Not Open

UTP Participant Trade Line Specification

6. Appendices

A – Input Error Conditions

<u>Error Code</u>	<u>Reject Description</u>
1	Invalid Message Category (MHCAT) and Type (MHTYPE) a. If other than specified Category and Type codes in section 2.2.8. b. If other than valid combination of Category and Type codes (Refer to section 2.2.8).
2	Invalid User Origin (MHORIG)
3	Invalid Message Destination (MHDEST)
4	Invalid Possible Duplicate Flag (MHSTAT)
7	Missing Message - The current Message Sequence Number is greater than expected. The message is accepted by the SIP.
8	Duplicate Message - The current MSN is less than or equal to the last message processed. The expected MSN is not incremented. The message is not accepted by the SIP.
11	System Not Open a. The EOD message was disseminated to the Participant by the SIP or; b. A trade report was transmitted to the SIP before the Trade Report SOD message was disseminated by the SIP or c. After the Participant EOPR Trade Message was transmitted to the SIP, or; d. After the SIP EOPR Trade message was disseminated to the Participant.
12	Sequence Number Not Numeric
26	Invalid SECID a. The SECID is not in the database or; b. The SECID is in a Deleted or Suspended state within the system
28	Invalid Price a. The Price is not numeric b. The price is zero
29	Invalid Volume a. The Volume is not numeric b. Report Volume is zero and sale condition does not equal "M" or "Q" c. Report contains volume of less than a round lot and sale condition does not equal "I" d. Sale Condition "9" received from Listing Market with Volume Other than Zero (0)

UTP Participant Trade Line Specification

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Invalid condition

- a. The condition is other than a valid trade condition.
- b. The trade through exempt value and condition values are not a valid combination.
- c. The condition values are not in proper bucket placement.

Valid conditions are:

Modifier	Condition	Modifier	Condition
@	Regular Sale	S	Split Trade
A	Acquisition	T	Form T
B	Bunched Trade	U	Extended trading hours (Sold Out of Sequence)
C	Cash Sale	V	Contingent Trade
D	Distribution	W	Average Price Trade
E	Placeholder	X	Cross Trade
F	Intermarket Sweep	Y	Yellow Flag Regular Trade
G	Bunched Sold Trade	Z	Sold (out of Sequence)
H	Price Variation Trade	1	Stopped Stock (Regular Trade)
I	Odd Lot Trade	2	Stopped Stock — Sold Last
K	Rule 155 Trade (AMEX)	3	Stopped Stock — Sold (Out of Sequence)
L	Sold Last	4	Derivatively priced
M	Market Center Official Close	5	Re-Opening Prints
N	Next Day	6	Closing Prints
O	Opening Prints	7	Qualified Contingent Trade (“QCT”)
P	Prior Reference Price	8	Placeholder For 611 Exempt
Q	Market Center Official Open	9	Corrected Consolidated Close (per listing market)
R	Seller		

Valid Placement Combinations are:

Scenario A: If the trade record is marked as 611 exempt (X) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
X	@, C, N, R, or Y	F, O, 4, 5, 6, 7, 8, 9, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

Scenario B: If the trade record is marked as Not 611 exempt (space) then the allowable four bytes values are as follows:

Trade Through Exempt 611 Exempt	Level1 – Byte Settlement Type	Level 2 – Byte Reason for TT Exemption	Level 3 Byte Extended Hours or Sold	Level 4 – Byte SRO Trade Detail
<space>	@, C, N, R, or Y	O, 5, 6, <space>	T, L, Z, U, <space>	1, A, B, D, E, G, H, I, K, M, P, Q, S, V, W, X, <space>

32

Invalid Number of Days field

The condition field is equal to R and the Seller days is other than 02 or 04 - 60.

33

Invalid Execution Side

The execution side is other than B (Buy), S (Sell), X (Cross), R (Short Sale)

36

SECID Halted

A regulatory halt by the primary market is in effect for that SECID. Quote update ability suspended for a specified SECID.

37

Invalid Format

The format of the message is not in accordance with the Participant Input Specification.

UTP Participant Trade Line Specification

- 60 Invalid Date and Time
The time/date in the message is not for a valid calendar date or time.
- 61 Regional Reference Number not numeric or NUL.
- 62 Market Open Message not received
A Market Closed message is being delivered on a day when the SIP has not received a Market Open message for the Participant.
- 73 Message contents of trade cancellation message do not match the original trade message.
- 74 Message contents of trade correction message do not match the original trade message.
- 76 Invalid Reversal Indicator
- 77 Invalid Reason Code
- 78 Invalid Outbound Message Sequence Number
a. Sequence number created for a new As/Of trade report
b. Sequence number entered for a trade reversal does not exist
- 80 Invalid Retail Interest Indicator
- 82 Invalid Reporting Time
a. Trade Report with sale condition "9" received prior to allowable reporting time.

UTP Participant Trade Line Specification

B – Glossary

Connection: Transmission path (including all equipment) between a sender and receiver.

IP Address: The IP Address together with the Well Known Port, is used to establish a connection to the SIP in order to send and receive UTP TCP/IP Messages. NASDAQ will assign this.

Nulls: The value of the lowest occurrence in the ASCII character set (Binary zero).

TCP/IP: Transmission Control Process/Internet Protocol. A method which allows communications to take place between heterogeneous systems in a multi-network environment (i.e. Internet).

Well Known Port: Identifier (5 bytes) combined with an IP Address to form a socket (connection) name. NASDAQ will assign this.

UTP Participant Trade Line Specification

C – ASCII Conversion matrix

ASCII												
From HwB												
ASCII = American Standard Code for Information Interchange												
ASCII Char	Dec	Hex	Description	base64 Time Digit (SU-MHDEST)	base95 Time Digit (S1 -MHDEST)	ASCII Char	Dec	Hex	Description	base64 Time Digit (SU-MHDEST)	base95 Time Digit (S1 -MHDEST)	
				Date/Time YYMDHMS	microseconds from midnight					Date/Time YYMDHMS	microseconds from midnight	
	32	20	Space		0	P	80	50	Uppercase P	32	48	
!	33	21	Exclamation		1	Q	81	51	Uppercase Q	33	49	
"	34	22	Double quotes		2	R	82	52	Uppercase R	34	50	
#	35	23	Number		3	S	83	53	Uppercase S	35	51	
\$	36	24	Dollar		4	T	84	54	Uppercase T	36	52	
%	37	25	Percent		5	U	85	55	Uppercase U	37	53	
&	38	26	Ampersand		6	V	86	56	Uppercase V	38	54	
'	39	27	Single Quote		7	W	87	57	Uppercase W	39	55	
(	40	28	Open Parenthesis		8	X	88	58	Uppercase X	40	56
)	41	29	Close Parenthesis		9	Y	89	59	Uppercase Y	41	57	
*	42	2A	Asterisk		10	Z	90	5A	Uppercase Z	42	58	
+	43	2B	Plus		11	[	91	5B	Opening bracket	43	59
,	44	2C	Comma		12	\	92	5C	Backslash	44	60	
-	45	2D	Hyphen		13	]	93	5D	Closing bracket	45	61
.	46	2E	Period		14	^	94	5E	Caret	46	62	
/	47	2F	Slash or Divide		15	_	95	5F	Underscore	47	63	
0	48	30	Zero	0	16	`	96	60	Grave accent	48	64	
1	49	31	One	1	17	a	97	61	Lowercase a	49	65	
2	50	32	Two	2	18	b	98	62	Lowercase b	50	66	
3	51	33	Three	3	19	c	99	63	Lowercase c	51	67	
4	52	34	Four	4	20	d	100	64	Lowercase d	52	68	
5	53	35	Five	5	21	e	101	65	Lowercase e	53	69	
6	54	36	Six	6	22	f	102	66	Lowercase f	54	70	
7	55	37	Seven	7	23	g	103	67	Lowercase g	55	71	
8	56	38	Eight	8	24	h	104	68	Lowercase h	56	72	
9	57	39	Nine	9	25	i	105	69	Lowercase i	57	73	
:	58	3A	Colon	10	26	j	106	6A	Lowercase j	58	74	
;	59	3B	Semicolon	11	27	k	107	6B	Lowercase k	59	75	
<	60	3C	Less than	12	28	l	108	6C	Lowercase l	60	76	
=	61	3D	Equals	13	29	m	109	6D	Lowercase m	61	77	
>	62	3E	Greater than	14	30	n	110	6E	Lowercase n	62	78	
?	63	3F	Question mark	15	31	o	111	6F	Lowercase o	63	79	
@	64	40	At symbol	16	32	p	112	70	Lowercase p		80	
A	65	41	Uppercase A	17	33	q	113	71	Lowercase q		81	
B	66	42	Uppercase B	18	34	r	114	72	Lowercase r		82	
C	67	43	Uppercase C	19	35	s	115	73	Lowercase s		83	
D	68	44	Uppercase D	20	36	t	116	74	Lowercase t		84	
E	69	45	Uppercase E	21	37	u	117	75	Lowercase u		85	
F	70	46	Uppercase F	22	38	v	118	76	Lowercase v		86	
G	71	47	Uppercase G	23	39	w	119	77	Lowercase w		87	
H	72	48	Uppercase H	24	40	x	120	78	Lowercase x		88	
I	73	49	Uppercase I	25	41	y	121	79	Lowercase y		89	
J	74	4A	Uppercase J	26	42	z	122	7A	Lowercase z		90	
K	75	4B	Uppercase K	27	43	{	123	7B	Opening Brace		91	
L	76	4C	Uppercase L	28	44	|	124	7C	Vertical Bar		92	
M	77	4D	Uppercase M	29	45	}	125	7D	Closing Brace		93	
N	78	4E	Uppercase N	30	46	~	126	7E	Equivalency Sign-Tilde		94	
O	79	4F	Uppercase O	31	47							

Event	Wall Time ET	base95						Microseconds from midnight
SOD	03:58:00.000000	!	p	>	N	L	M	1428000000
Participant entry	04:00:00.000000	!	q	k	J	r	C	1440000000
Market Open	09:30:00.000000	\$	G	t	2	a		3420000000
Random Time	10:15:05.123456	\$	i	)	>	A	g	36905123456
Market Close	16:00:00.000000	'	J	0	I	L	M	5760000000
EOD	20:10:00.000000	)	D	@	&	?	>	7260000000
EOT	20:16:00.000000	)	H	g	z	R		7296000000